

TECHNICAL DOCUMENTATION

Example 21.4

Project	Example 21.4
Designer	
Application	EXAMPLE_21_4.stu
Software Version	ControlExpert V15.0-SP1
Creation Date	1/2/2023 1:20:38 PM
Last Modification Date	6/16/2023 3:05:12 PM
Target PLC	BMX P34 1000 02.00CPU 340-10 Modbus

Derived FB Types

Name	Version	Date
Gate_Flop	0.05	1/3/2023 2:58:13 PM
Gate_Slide	0.07	1/3/2023 2:57:48 PM
Motor_Conv	0.09	1/3/2023 2:58:13 PM
Motor_Std	0.06	1/3/2023 2:58:13 PM
Motor_VFD	0.26	12/30/2015 8:09:27 AM
Valve_Disc	0.04	12/30/2015 8:09:27 AM

Gate_Flop

Properties:

Version:0.05

Descriptive file:

<inputs>:

Name	Type	Value	Comment
Left_LS	BOOL		Left position limit switch
Right_LS	BOOL		Right position limit switch
HOA_Switch	BOOL		HOA switch auto contact
Alarm_Reset	BOOL		Resets alarms
Maint	BOOL		Maintenance privilege
Man_Left	BOOL		Manual left button
Man_Right	BOOL		Manual right button
Select_Dev_Num	DINT		Device selected to start/stop
This_Dev_Num	DINT		Number for this device

<outputs>:

Name	Type	Value	Comment
Sol_Left	BOOL		Left position solenoid valve
Sol_Right	BOOL		Right position solenoid valve

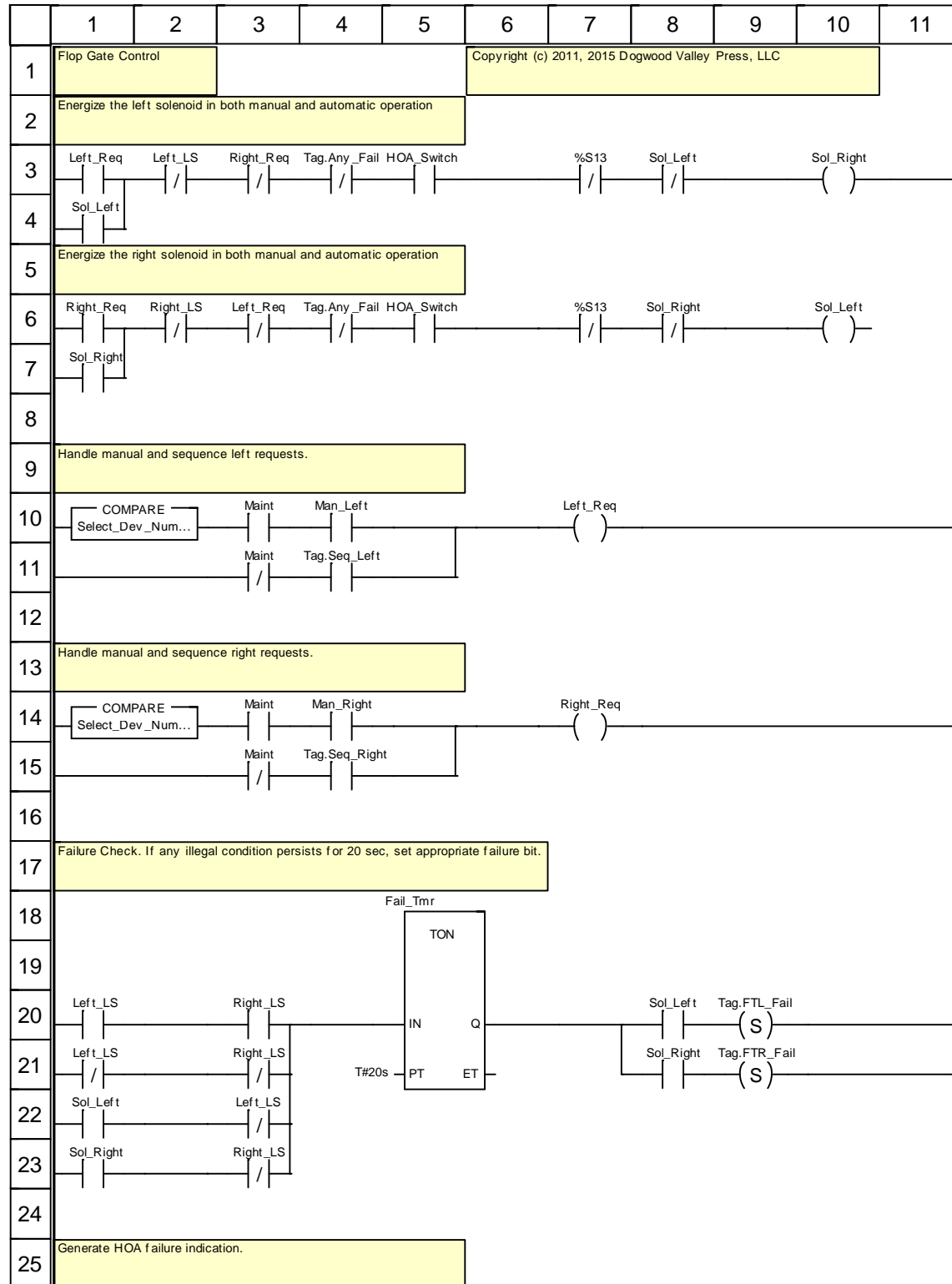
<inputs/outputs>:

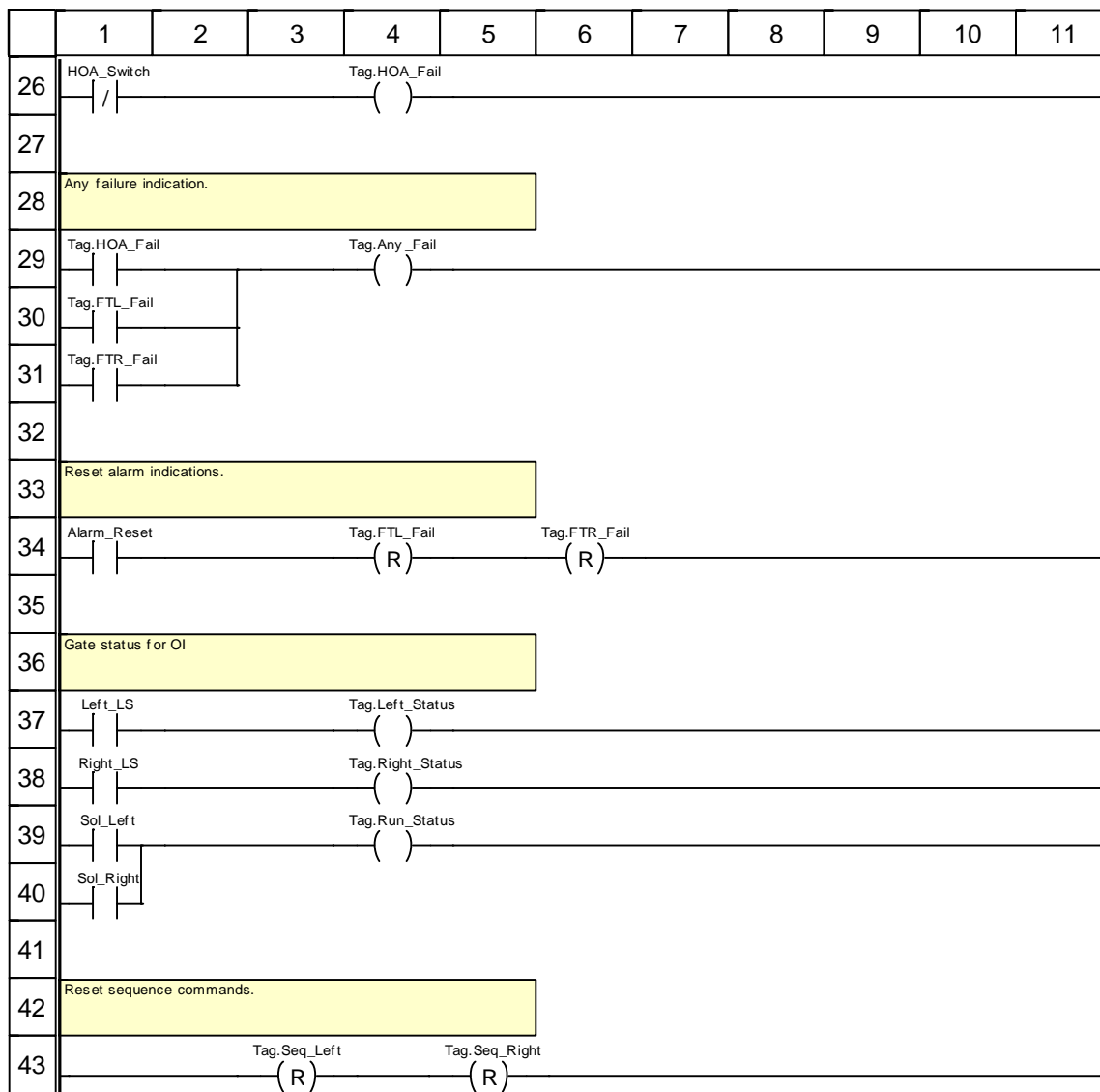
Name	Type	Value	Comment
Tag	Gate_Flop_Type		Equipment tag
Run_Status	BOOL		Gate moving status
Left_Status	BOOL		Left status of gate
Right_Status	BOOL		Right status of gate
Any_Fail	BOOL		Failure alarm
HOA_Fail	BOOL		HOA-switch-not-in-auto alarm
FTL_Fail	BOOL		Fail-to-divert-left alarm
FTR_Fail	BOOL		Fail-to-divert-right alarm
Seq_Left	BOOL		Device left command from sequence
Seq_Right	BOOL		Device right command from sequence

<public>:

None

Main <DFB> : [Gate_Flop]





Truncated labels:

Label	Position(s)
Select_Dev_Num = This_Dev_Num	(1, 10) (1, 14)

Gate_Slide

Properties:

Version:0.07

Descriptive file:

<inputs>:

Name	Type	Value	Comment
Open_Aux	BOOL		Auxiliary contact for open
Close_Aux	BOOL		Auxiliary contact for close
OL_Trip	BOOL		Overload trip
HOA_Switch	BOOL		HOA switch auto contact
Open_LS	BOOL		Gate-open limit switch
Close_LS	BOOL		Gate-closed limit switch
Alarm_Reset	BOOL		Resets alarms
Maint	BOOL		Maintenance privilege
Man_Open	BOOL		Manual open
Man_Close	BOOL		Manual close
Select_Dev_Num	DINT		Device selected to start/stop
This_Dev_Num	DINT		Number for this device

<outputs>:

Name	Type	Value	Comment
Start_Open	BOOL		Open motor starter contact
Start_Close	BOOL		Close motor starter contact

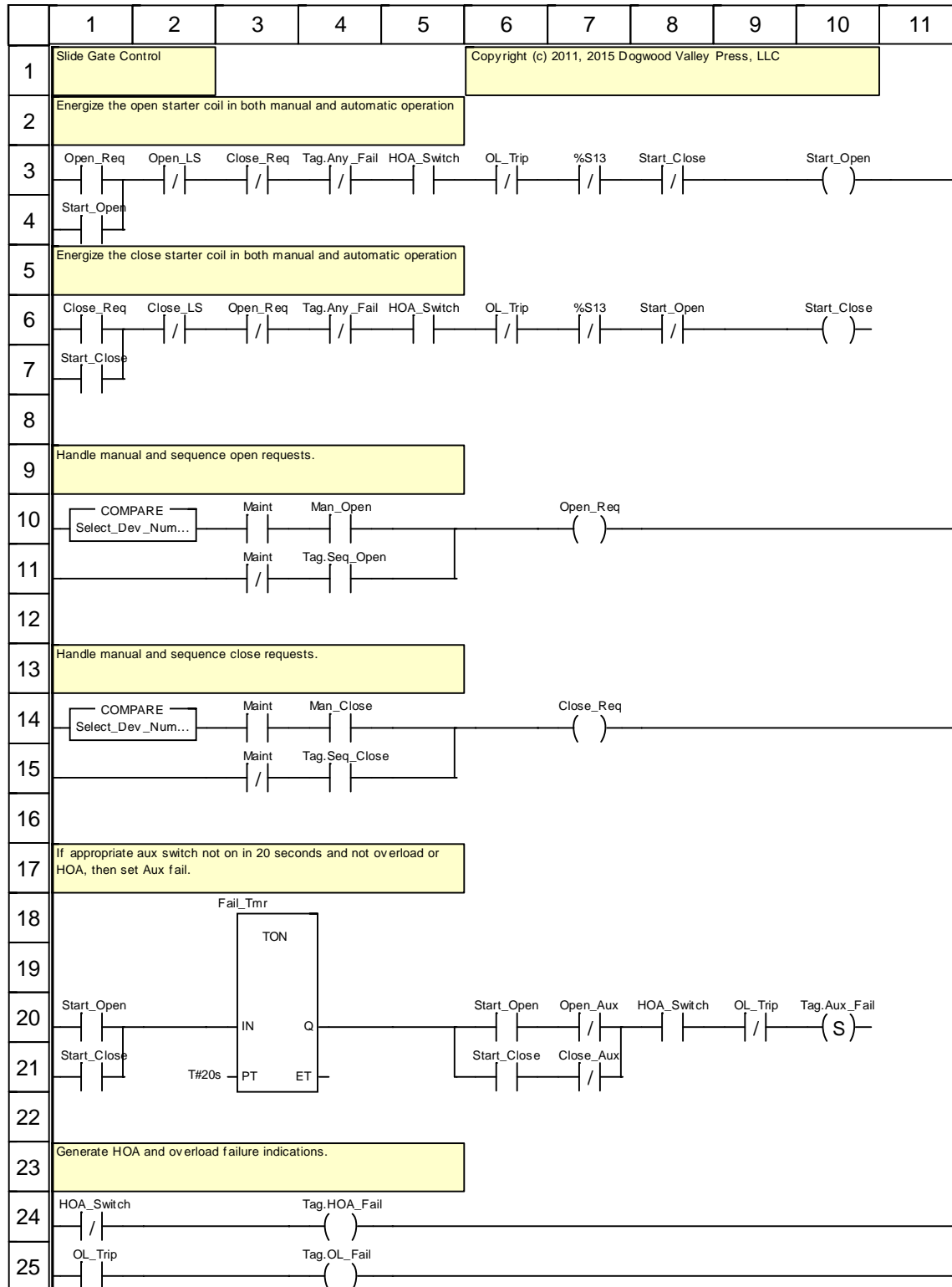
<inputs/outputs>:

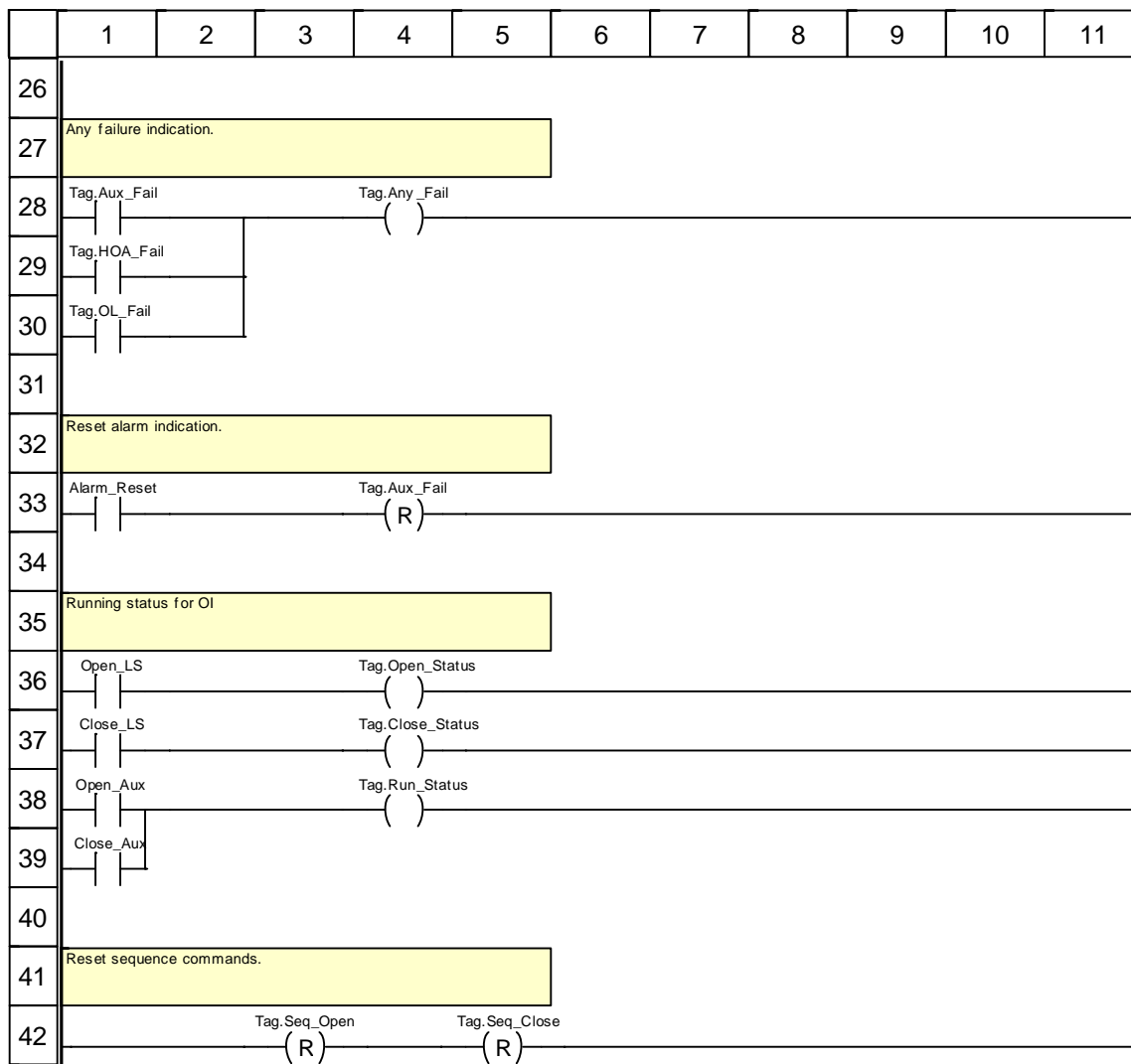
Name	Type	Value	Comment
Tag	Gate_Slide_Type		Equipment tag
Run_Status	BOOL		Run status
Open_Status	BOOL		Open status of gate
Close_Status	BOOL		Close status of gate
Any_Fail	BOOL		Failure alarm
Aux_Fail	BOOL		Auxiliary fail alarm
OL_Fail	BOOL		Overload alarm
HOA_Fail	BOOL		HOA-switch-not-in-auto alarm
Seq_Open	BOOL		Device open command from sequence
Seq_Close	BOOL		Device close command from sequence

<public>:

None

Main <DFB> : [Gate_Slide]





Truncated labels:

Label	Position(s)
Select_Dev_Num = This_Dev_Num	(1, 10) (1, 14)

Motor_Conv

Properties:

Version:0.09

Descriptive file:

<inputs>:

Name	Type	Value	Comment
Aux_Contact	BOOL		Auxiliary contact
OL_Trip	BOOL		Overload trip
HOA_Switch	BOOL		HOA switch auto contact
Speed_Switch	BOOL		Conveyor speed switch
Alarm_Reset	BOOL		Resets alarms
Maint	BOOL		Maintenance privilege
Man_Start	BOOL		Manual start
Man_Stop	BOOL		Manual stop
Select_Dev_Num	DINT		Device selected to start/stop
This_Dev_Num	DINT		Number for this device

<outputs>:

Name	Type	Value	Comment
Starter	BOOL		

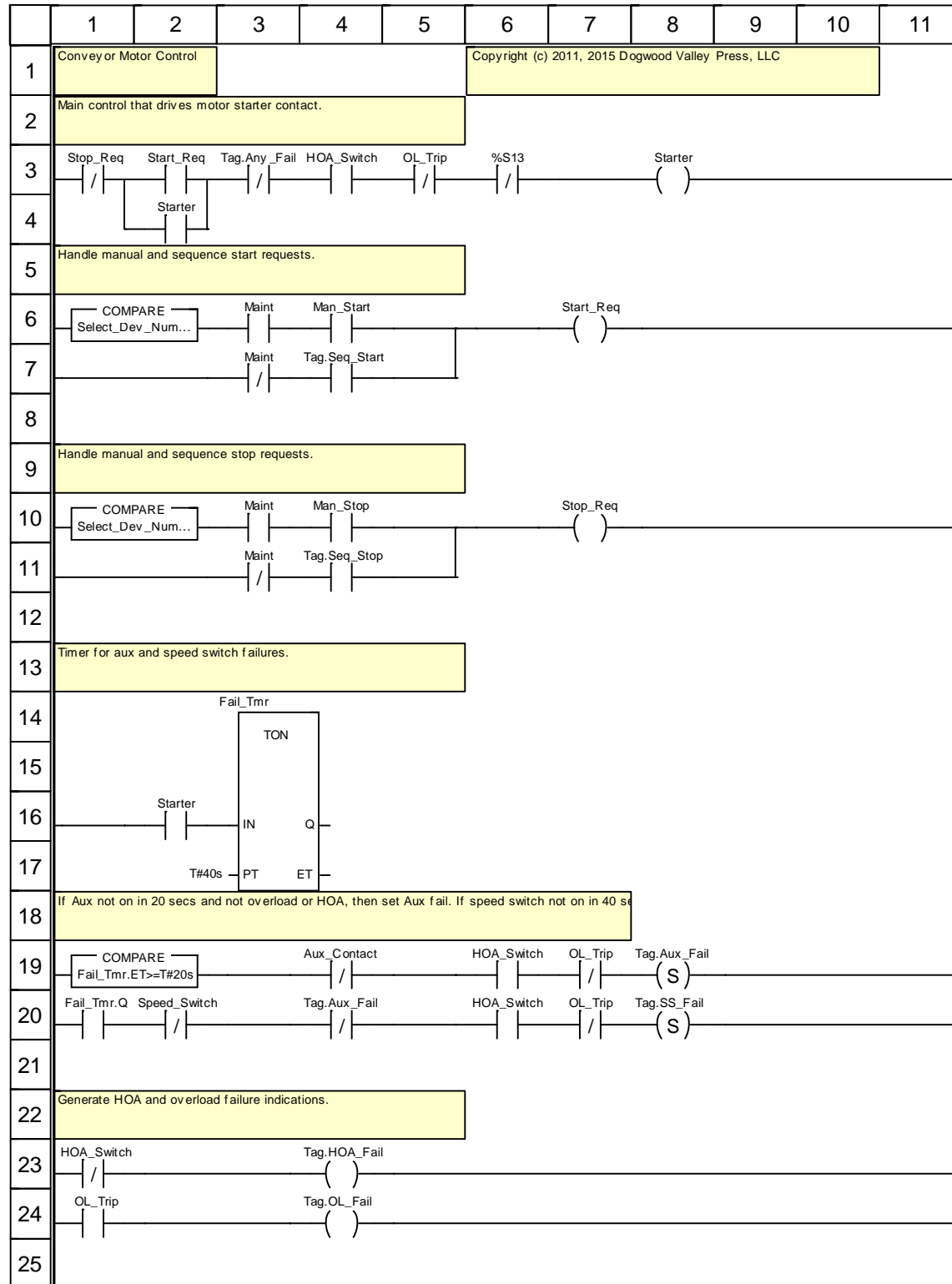
<inputs/outputs>:

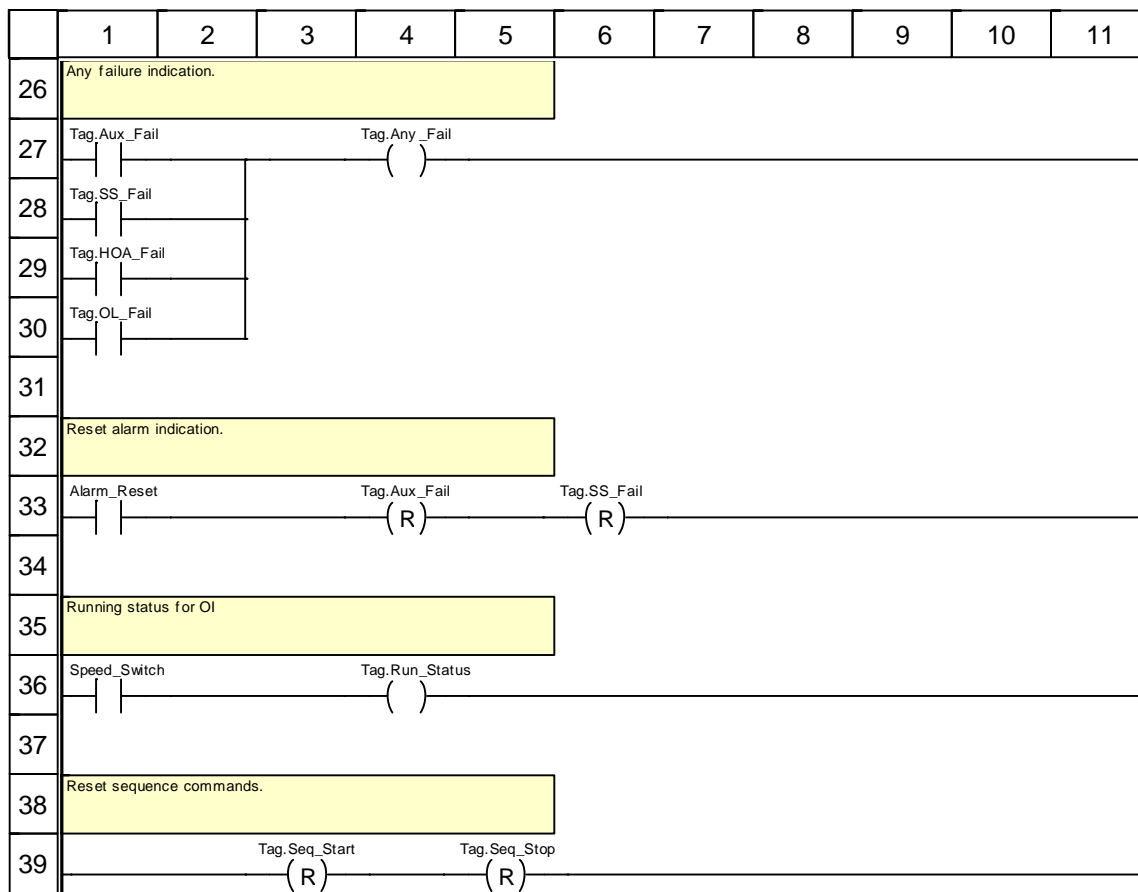
Name	Type	Value	Comment
Tag	Motor_Conv_Type		Device tag
Run_Status	BOOL		Run status
Any_Fail	BOOL		Failure alarm
Aux_Fail	BOOL		Auxiliary fail alarm
SS_Fail	BOOL		Speed switch failure
OL_Fail	BOOL		Overload alarm
HOA_Fail	BOOL		HOA-switch-not-in-auto alarm
Seq_Start	BOOL		Device start command from sequence
Seq_Stop	BOOL		Device stop command from sequence

<public>:

None

Main <DFB> : [Motor_Conv]





Truncated labels:

Label	Position(s)
Select_Dev_Num = This_Dev_Num	(1, 6) (1, 10)

Motor_Std

Properties:

Version:0.06

Descriptive file:

<inputs>:

Name	Type	Value	Comment
Aux_Contact	BOOL		Auxiliary contact
OL_Trip	BOOL		Overload trip
HOA_Switch	BOOL		HOA switch auto contact
Alarm_Reset	BOOL		Resets alarms
Maint	BOOL		Maintenance privilege
Man_Start	BOOL		Manual start
Man_Stop	BOOL		Manual stop
Select_Dev_Num	DINT		Device selected to start/stop
This_Dev_Num	DINT		Number for this device

<outputs>:

Name	Type	Value	Comment
Starter	BOOL		Motor starter contact

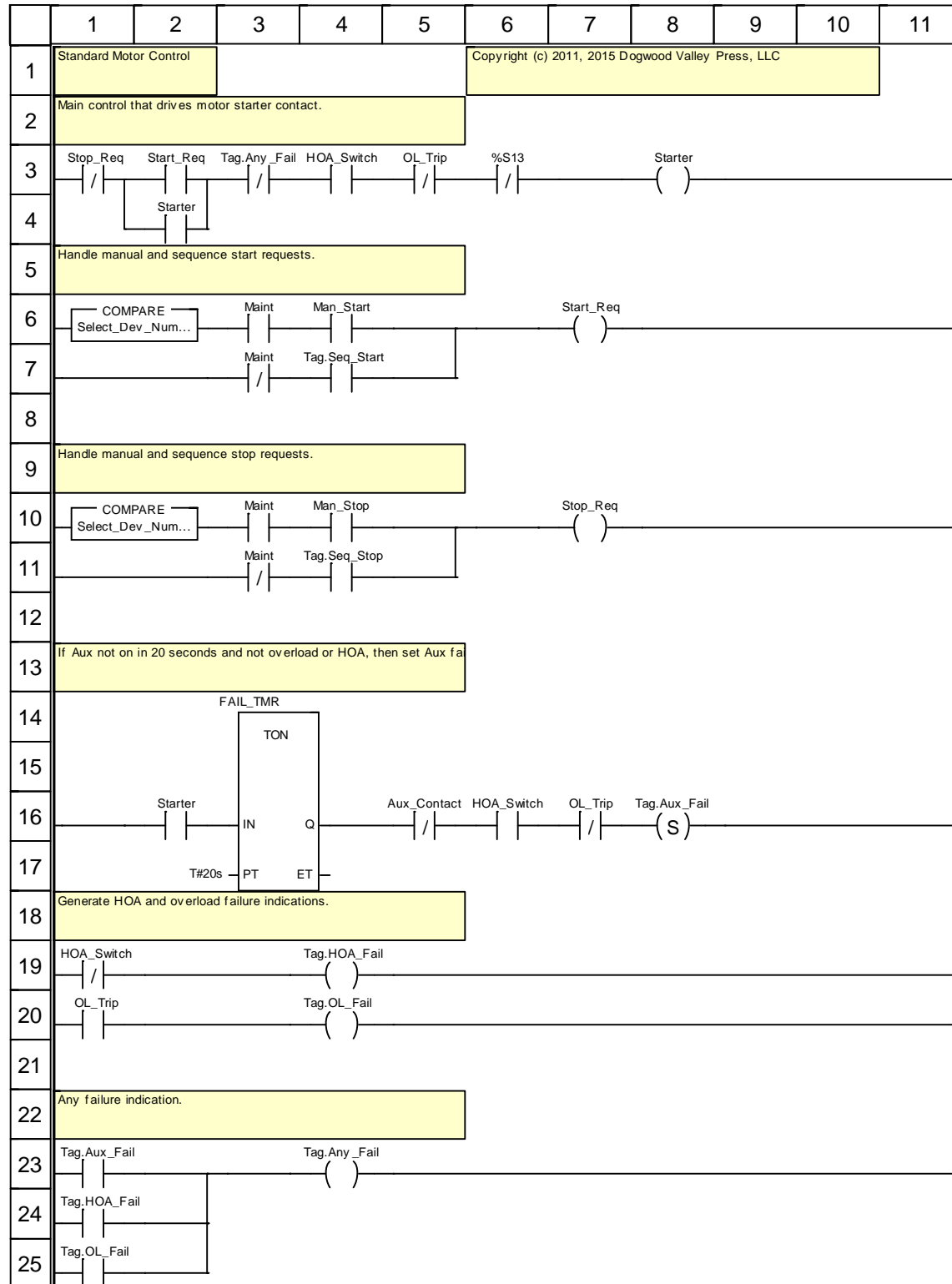
<inputs/outputs>:

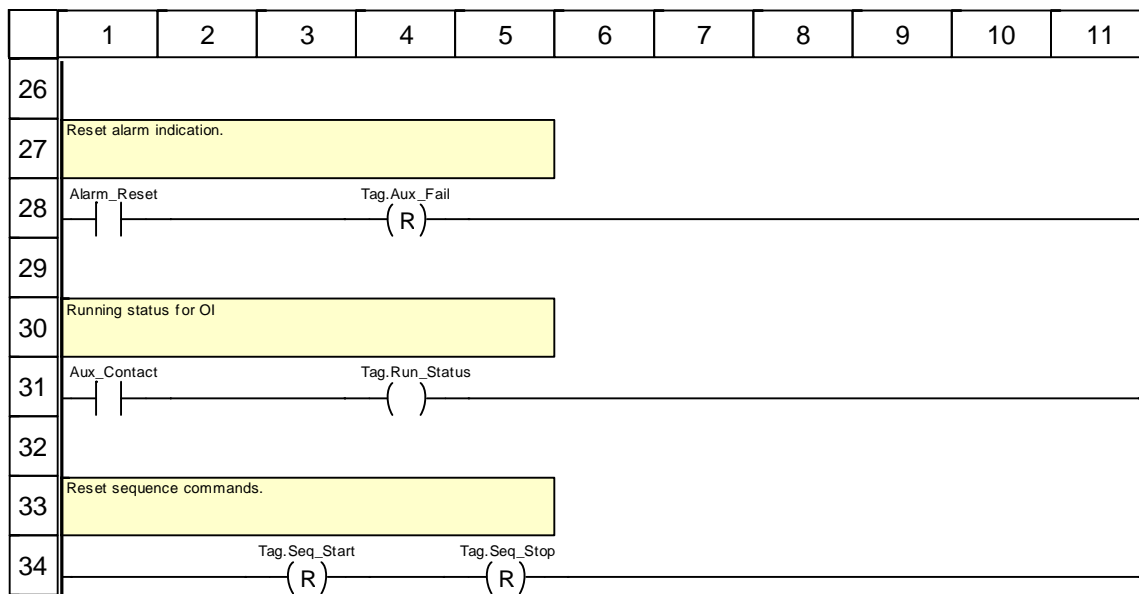
Name	Type	Value	Comment
Tag	Motor_Std_Type		Device tag
Run_Status	BOOL		Run status
Any_Fail	BOOL		Failure alarm
Aux_Fail	BOOL		Auxiliary fail alarm
OL_Fail	BOOL		Overload alarm
HOA_Fail	BOOL		HOA-switch-not-in-auto alarm
Seq_Start	BOOL		Device start command from sequence
Seq_Stop	BOOL		Device stop command from sequence

<public>:

None

Main <DFB> : [Motor_Std]





Truncated labels:

Label	Position(s)
Select_Dev_Num = This_Dev_Num	(1, 6) (1, 10)

Motor_VFD

Properties:

Version:0.26

Descriptive file:

<inputs>:

Name	Type	Value	Comment
Alm_Rst	BOOL		
Man_Mode	BOOL		
Man_Start	BOOL		
Man_Stop	BOOL		
Comm_Health	BOOL		

<outputs>:

None

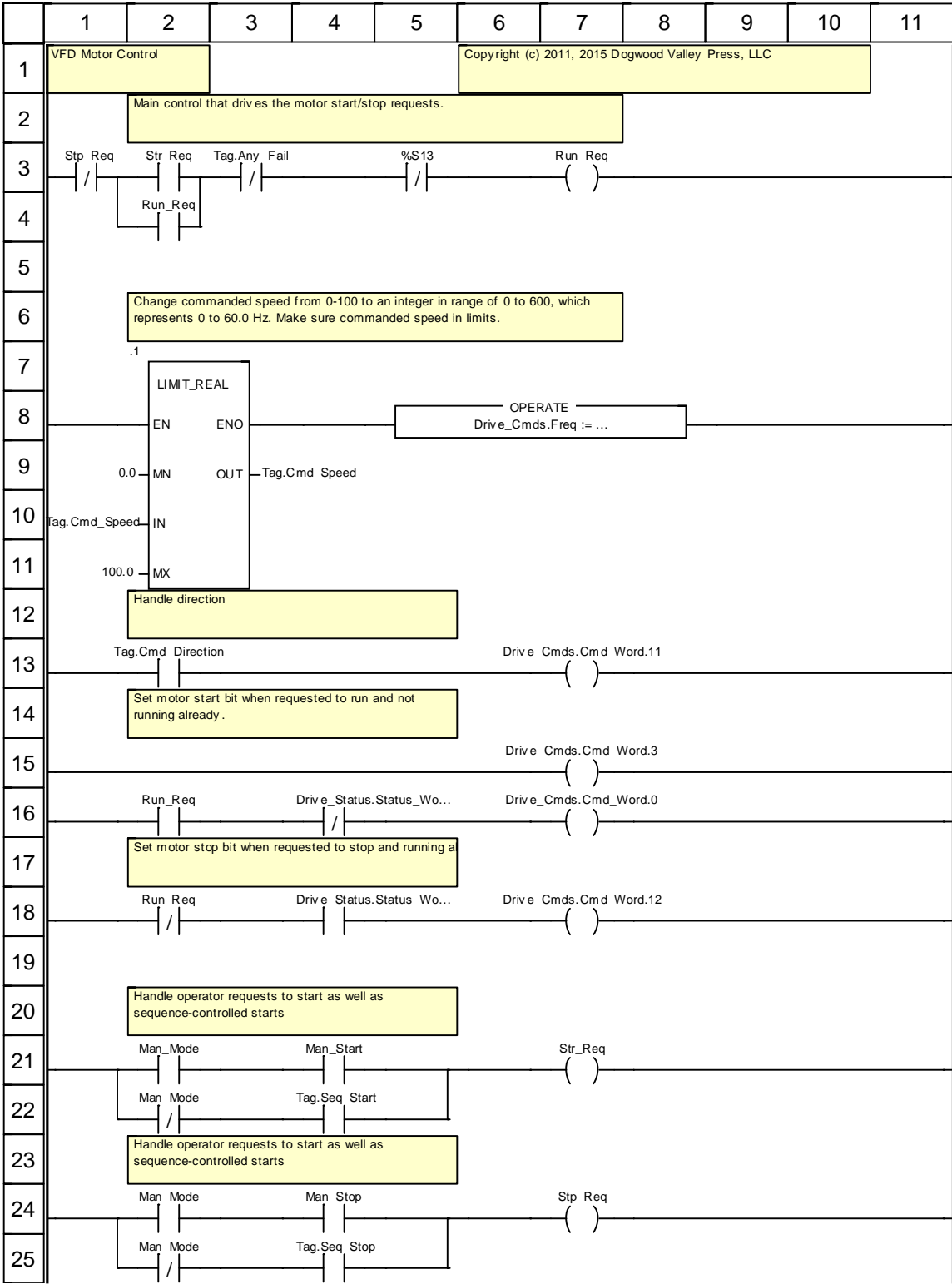
<inputs/outputs>:

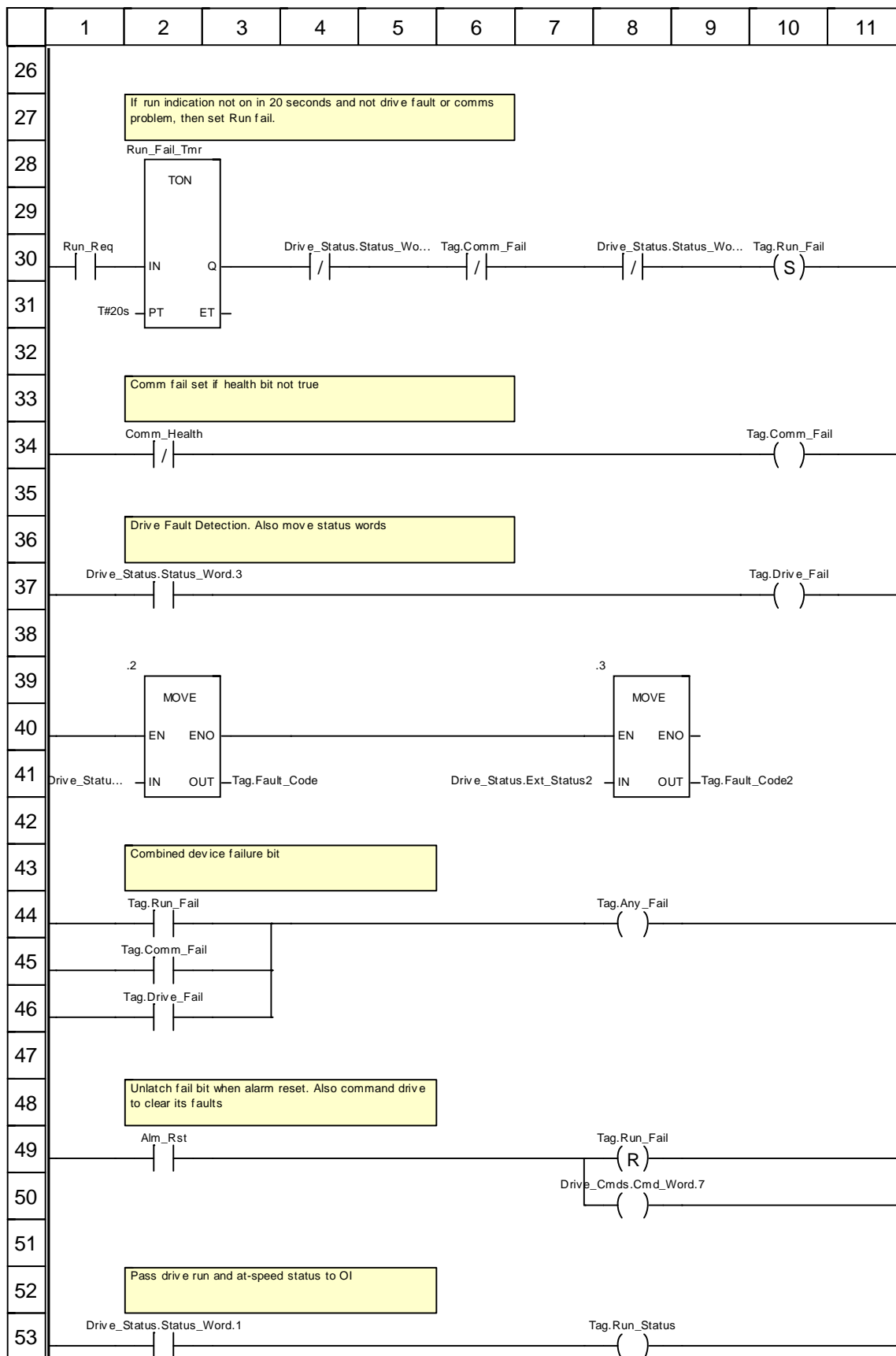
Name	Type	Value	Comment
Drive_Status	Altivar31_Status		
Status_Word	INT		word 3201
Out_Freq	INT		word 3202
Freq_Ref_Before_Ramp	INT		word 3203
Motor_Amps	INT		word 3204
Motor_Torque	INT		word 3205
Ext_Status	INT		word 3206
Ext_Status2	INT		word 3250
Drive_Cmds	Altivar31_Cmds		
Cmd_Word	INT		word 8501
Freq	INT		word 8502
Tag	Motor_VFD_Type		
Run_Status	BOOL		Run Status (1=running)
At_Speed	BOOL		Drive at speed
Any_Fail	BOOL		Overall Failure Alarm (1=alarm)
Run_Fail	BOOL		Run failure alarm (1=failure)
Drive_Fail	BOOL		Drive failure (1=failure)
Comm_Fail	BOOL		Communication to VFD failure (1=failure)
Seq_Start	BOOL		Motor start initiated from sequence
Seq_Stop	BOOL		Motor stop initiated from sequence
Cmd_Direction	BOOL		Commanded direction 0 - forward, 1 - reverse
Fault_Code	INT		Drive fault code (word 3206)
Fault_Code2	INT		Drive fault code 2 (word 3250)
Cmd_Speed	REAL		Reference motor speed 0-100
Act_Speed	REAL		Actual motor speed 0-100
Act_Current	REAL		Actual motor current, amps
Act_Torque	REAL		Actual motor torque, 0-100

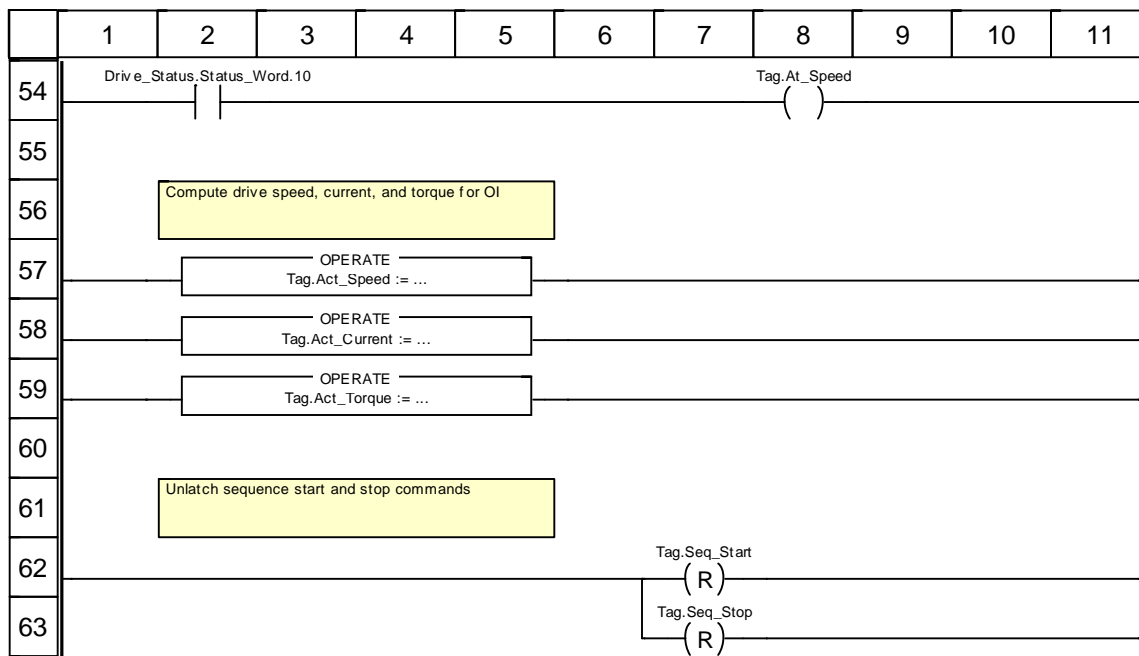
<public>:

None

Main <DFB> : [Motor_VFD]







Truncated labels:

Label	Position(s)
Drive_Cmds.Freq := REAL_TO_INT((Tag.Cmd_Speed/100.0)*600.0);	(5, 8)
Drive_Status.Status_Word.1	(4, 16) (4, 18) (8, 30)
Drive_Status.Status_Word.3	(4, 30)
Tag.Act_Current := (INT_TO_REAL(Drive_Status.Motor_Amps))/10.0;	(2, 58)
Tag.Act_Speed := ((INT_TO_REAL(Drive_Status.Out_Freq))/600.0)*100.0;	(2, 57)
Tag.Act_Torque := INT_TO_REAL(Drive_Status.Motor_Torque);	(2, 59)

Valve_Disc

Properties:

Version:0.04

Descriptive file:

<inputs>:

Name	Type	Value	Comment
Open_LS	BOOL		Valve-open limit switch
Close_LS	BOOL		Valve-closed limit switch
Alarm_Reset	BOOL		Resets alarms
Maint	BOOL		Maintenance privilege
Man_Open	BOOL		Manual open
Man_Close	BOOL		Manual close
Select_Dev_Num	INT		Device selected to start/stop
This_Dev_Num	INT		Number for this device

<outputs>:

Name	Type	Value	Comment
Sol_Vlv	BOOL		Valve solenoid (1=open, 0=close)

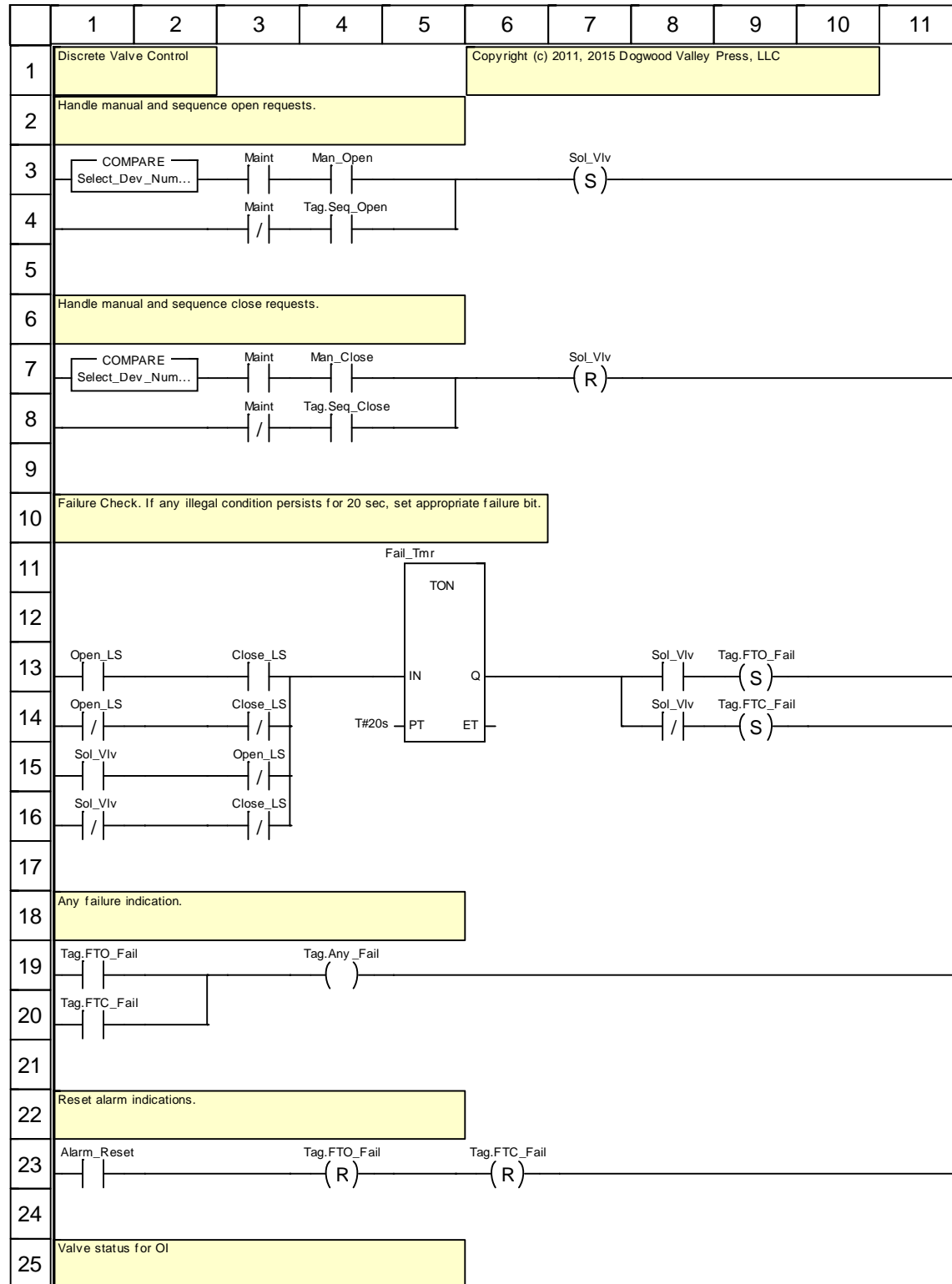
<inputs/outputs>:

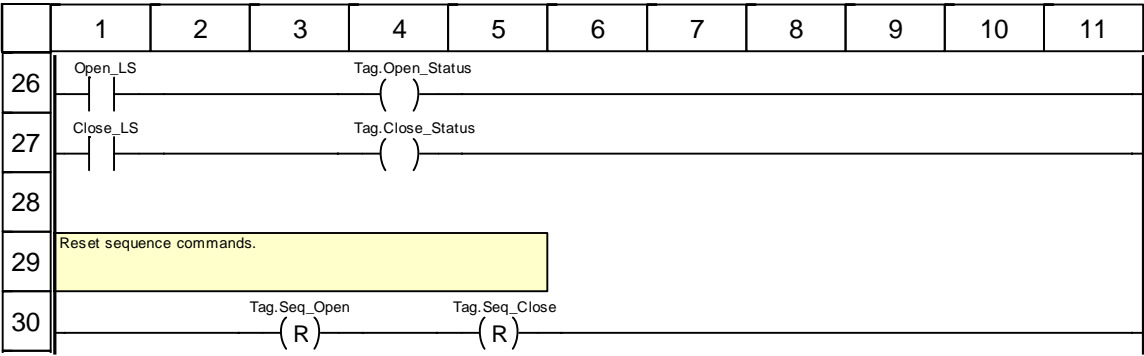
Name	Type	Value	Comment
Tag	Valve_Disc_Type		Equipment Tag
Open_Status	BOOL		Open status of valve
Close_Status	BOOL		Closed status of valve
Any_Fail	BOOL		Failure alarm
FTO_Fail	BOOL		Fail-to-open fail alarm
FTC_Fail	BOOL		Fail-to-close fail alarm
Seq_Open	BOOL		Device open command from sequence
Seq_Close	BOOL		Device close command from sequence

<public>:

None

Main <DFB> : [Valve_Disc]





Truncated labels:

Label	Position(s)
Select_Dev_Num = This_Dev_Num	(1, 3) (1, 7)

MAST

Specific properties

Configuration	Cyclic
Task period configuration	0
Watchdog time configuration	250

Main : [MAST]

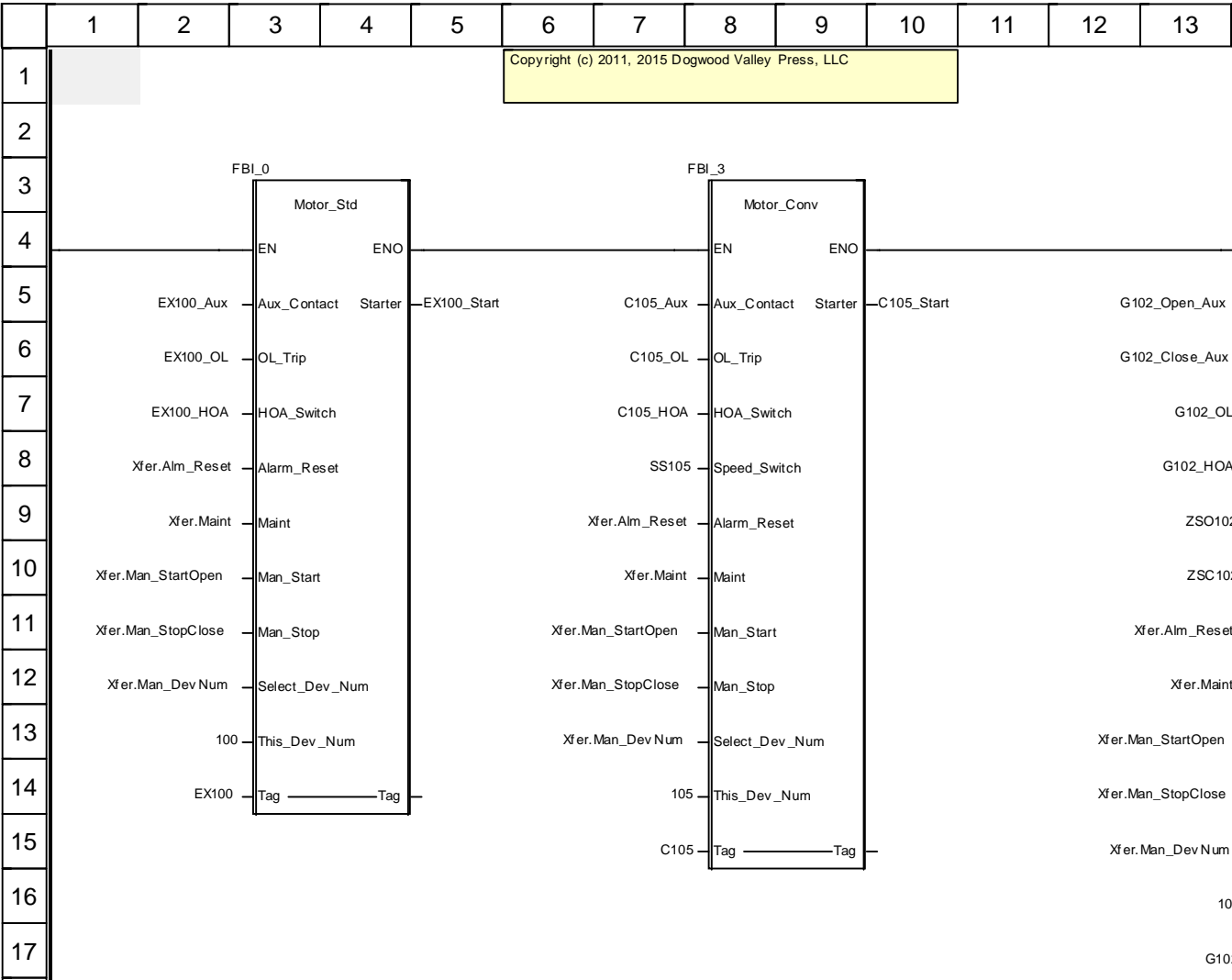
	1	2	3	4	5	6	7	8	9	10
1										
2		Example 21.4 using Move for transitions				Copyright (c) 2011, 2015, 2022 Dogwood Valley Press, LLC				
3										
4		Xfer section contains calls to unit routines								

Xfer : [MAST]

```
120| 1|      10|      20|      30|      40|      50|      60|      70|      80|      90|      100|      110|
      134|
1  (*
2   Xfer main routine that calls subroutine sections
3  *)
4
5  (* Copyright c) 2011, 2015 Dogwood Valley Press, LLC  *)
6
7  Xfer_Misc_SR();
8  Xfer_Abnormal_SR();
9  Xfer_Startup_SR();
10 Xfer_Operate_SR();
11 Xfer_Hold_SR();
12 Xfer_Shutdown_SR();
13 Xfer_EShutdown_SR();
```

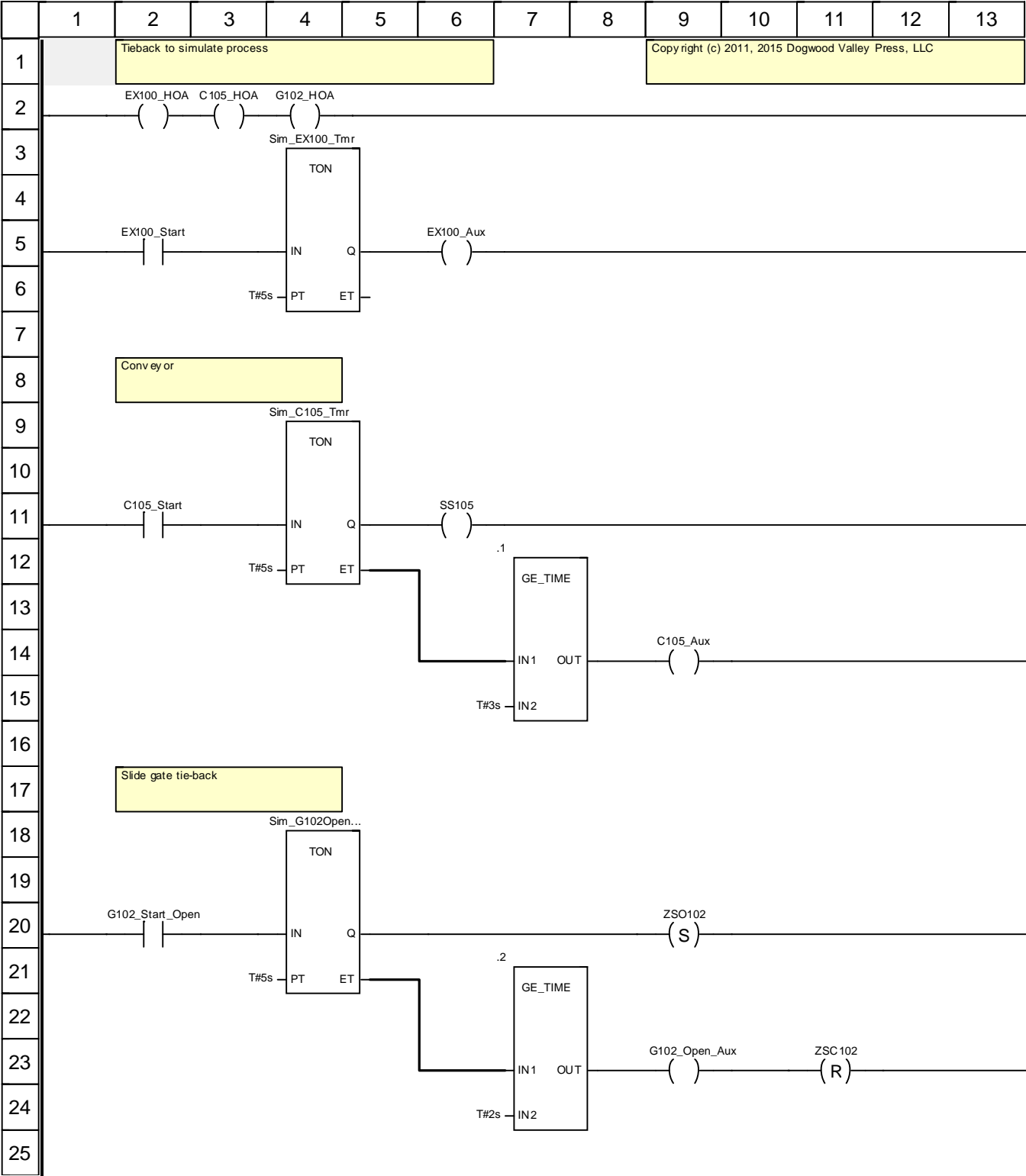
Valves : [MAST]

Motors : [MAST]

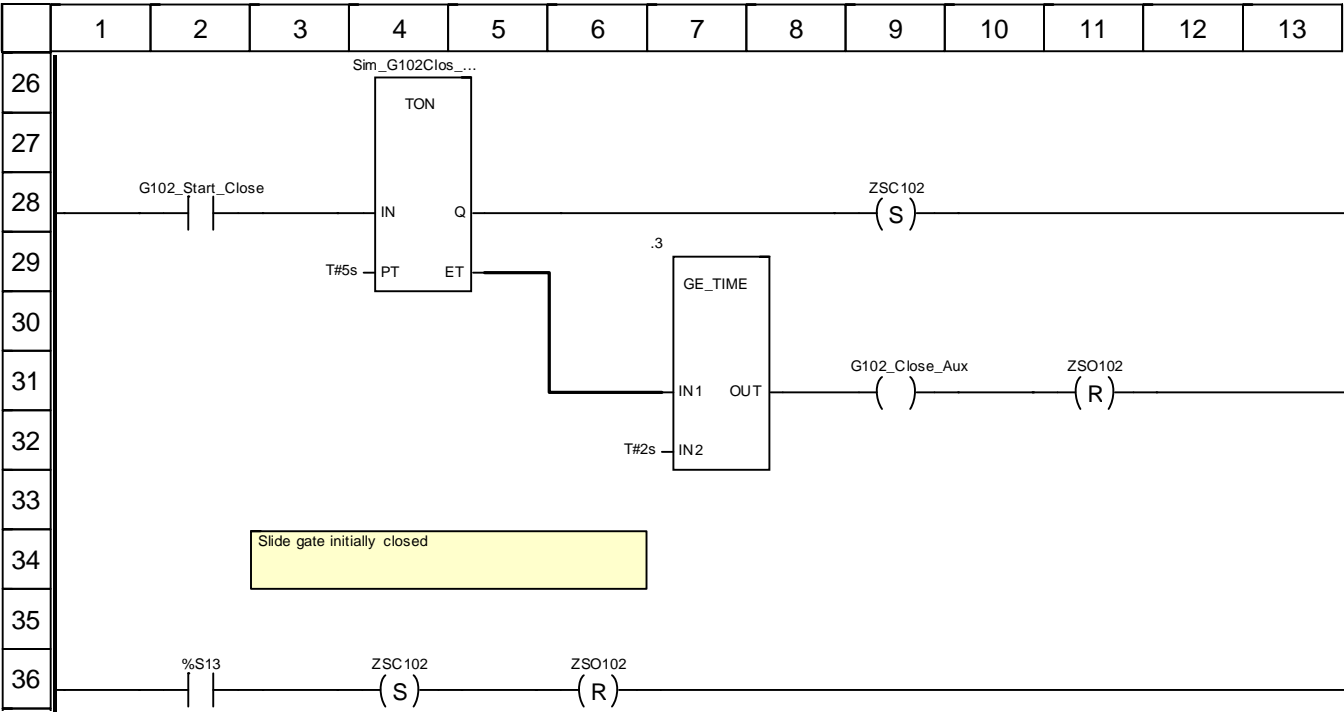


	14	15	16	17
1				
2				
3	FBI_4			
	Gate_Slide			
4	EN	ENO		
5	Open_Aux	Start_Open	G102_Start_Open	
6	Close_Aux	Start_C...	G102_Start_Close	
7	OL_Trip			
8	HOA_Switch			
9	Open_LS			
10	Close_LS			
11	Alarm_Reset			
12	Maint			
13	Man_Open			
14	Man_Close			
15	Select_Dev_Num			
16	This_Dev_Num			
17	Tag	Tag		

Simulation : [MAST]



	14	15	16	17	18	19	20
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							

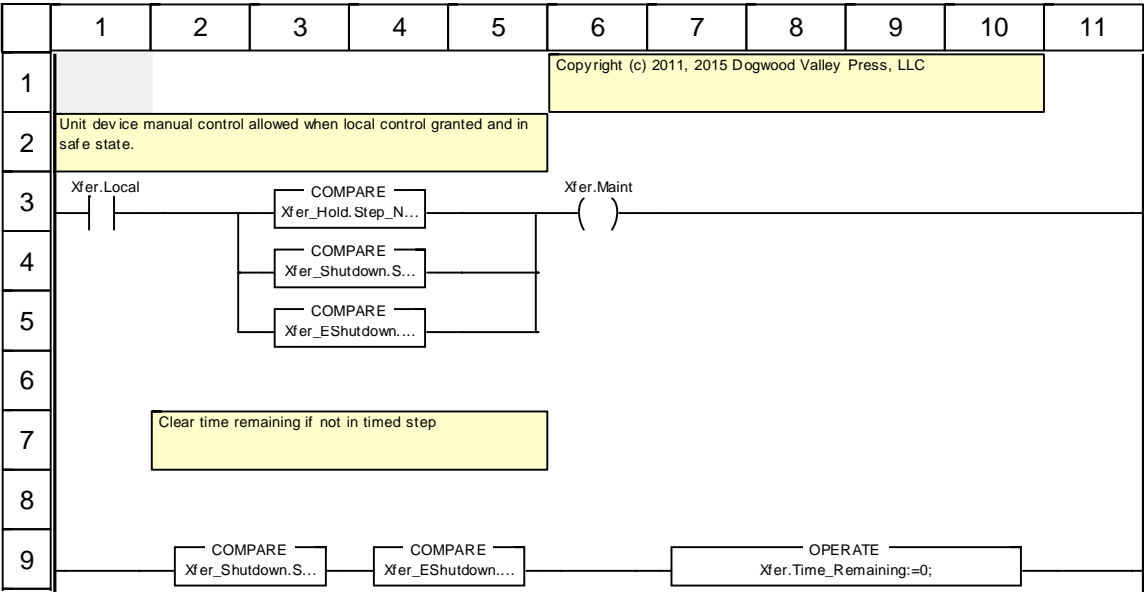


	14	15	16	17	18	19	20
26							
27							
28							
29							
30							
31							
32							
33							
34							
35							
36							

Truncated labels:

Label	Position(s)
Sim_G102Clos_Tmr	(4, 26)
Sim_G102Open_Tmr	(4, 18)

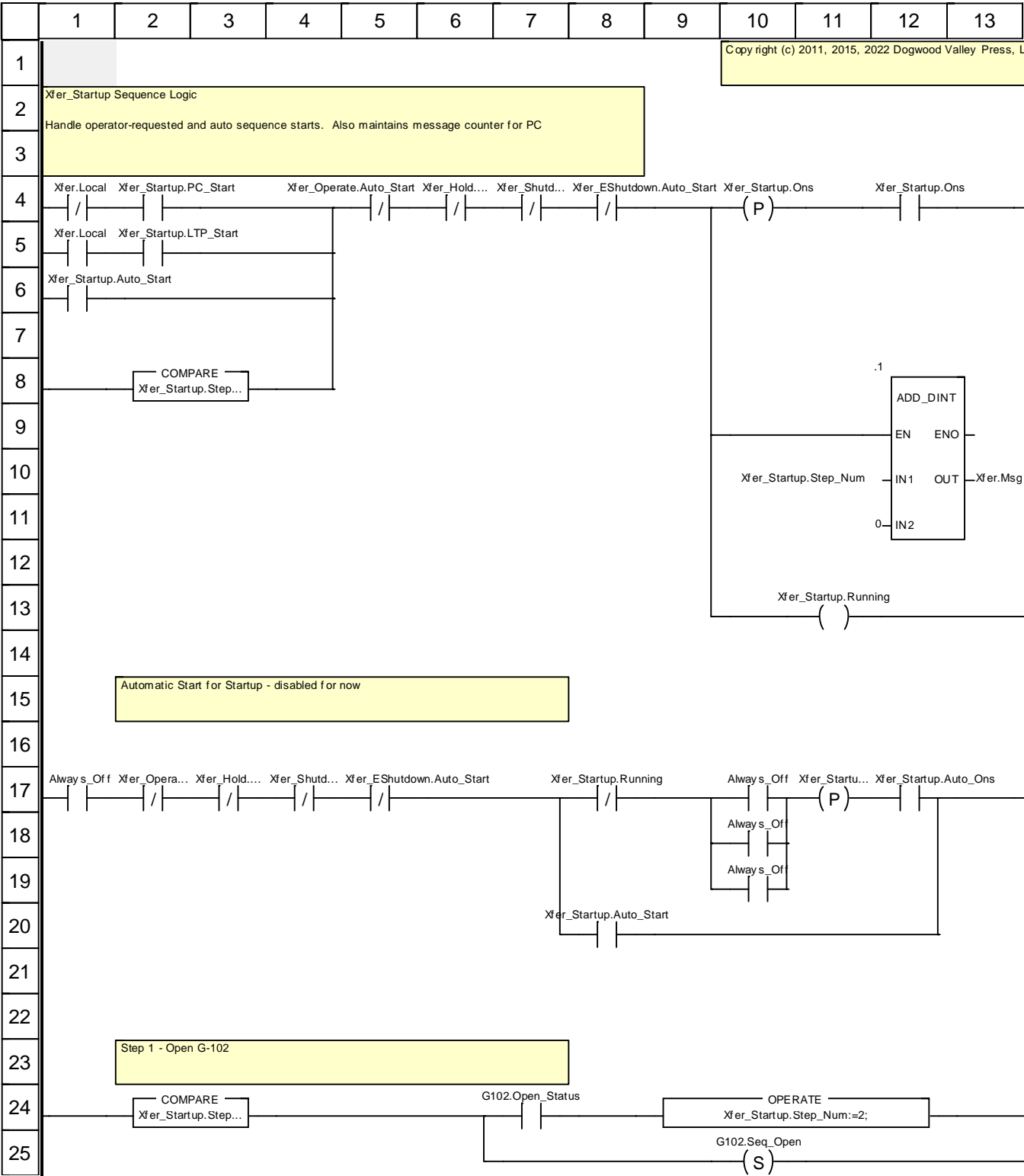
Xfer_Misc_SR <SR> : [MAST]

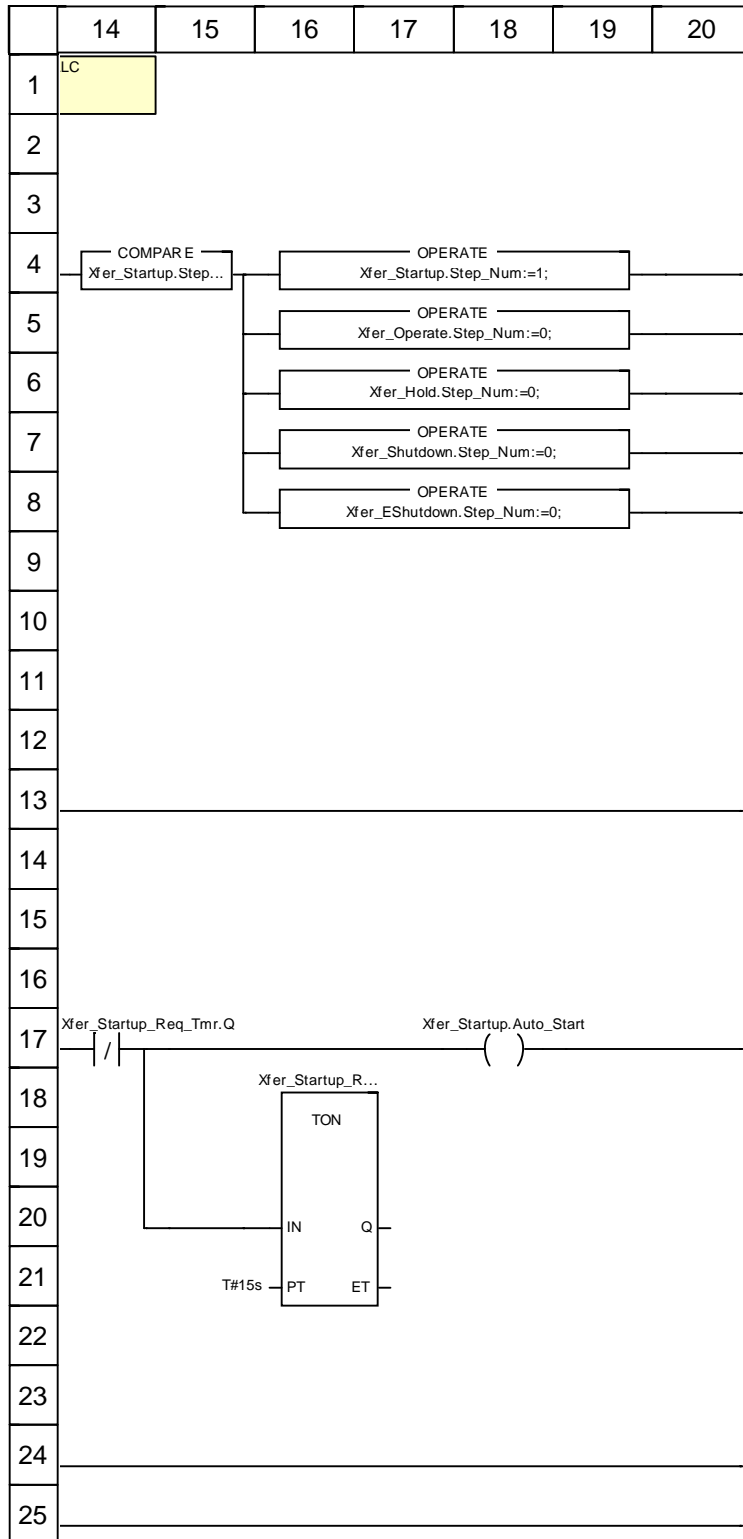


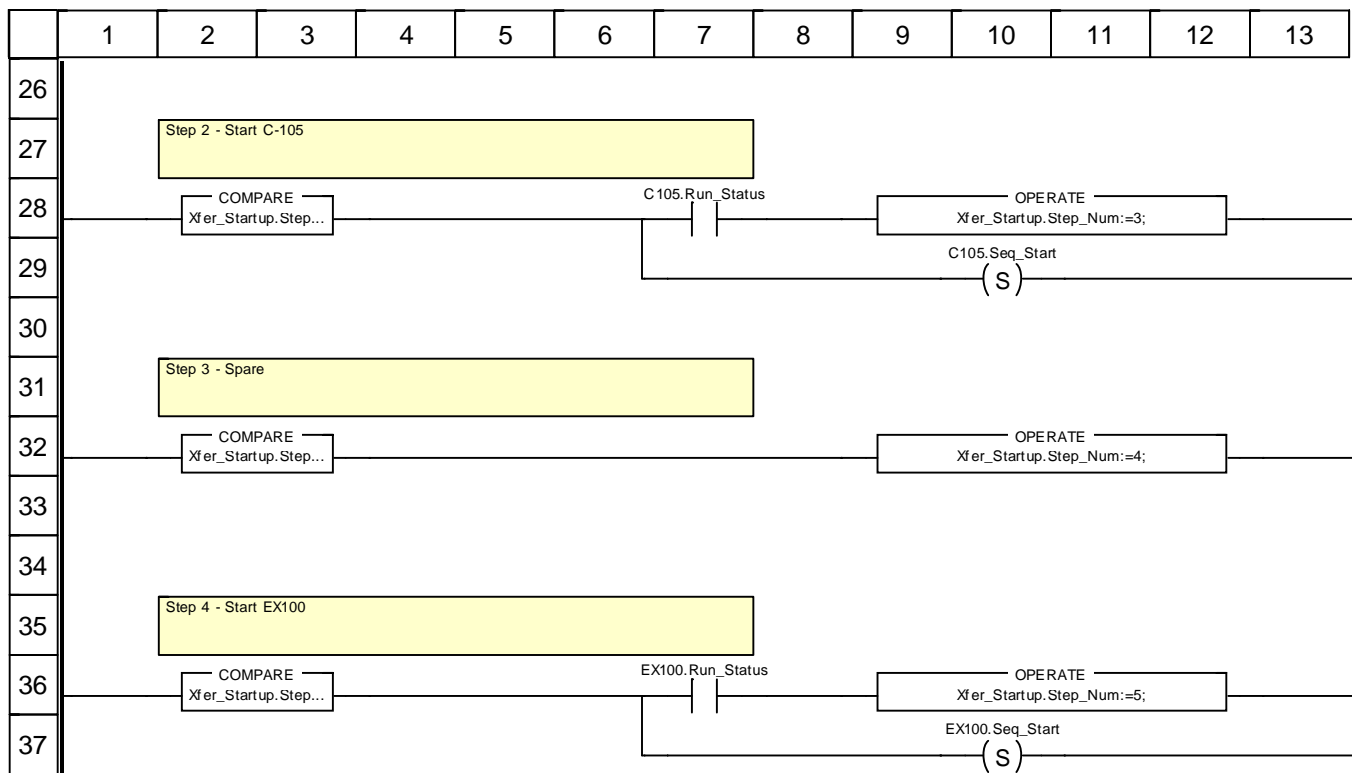
Truncated labels:

Label	Position(s)
Xfer_EShutdown.Step_Num<>4	(4, 9)
Xfer_EShutdown.Step_Num=5	(3, 5)
Xfer_Hold.Step_Num=1	(3, 3)
Xfer_Shutdown.Step_Num<>2	(2, 9)
Xfer_Shutdown.Step_Num=7	(3, 4)

Xfer_Startup_SR <SR> : [MAST]





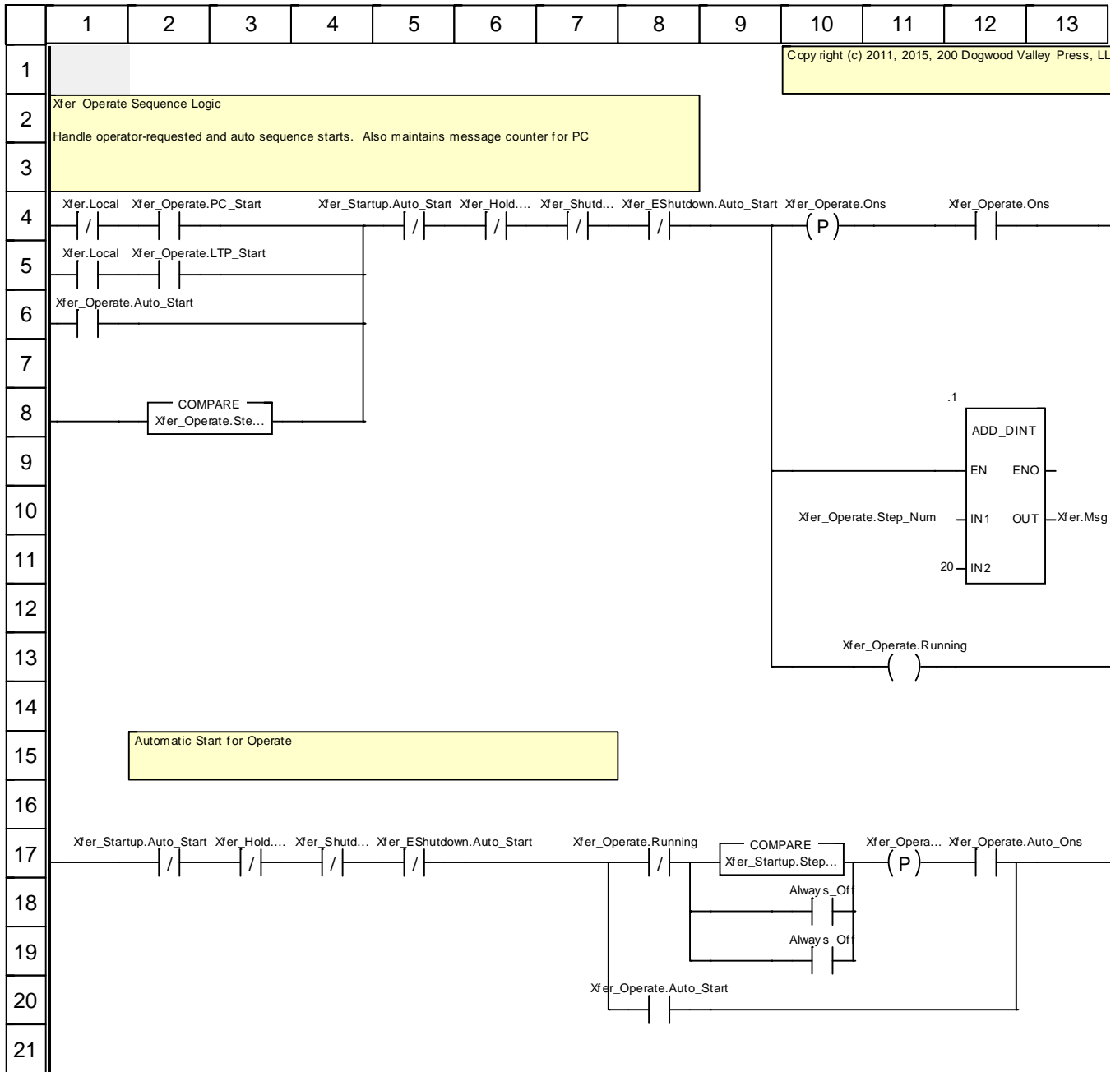


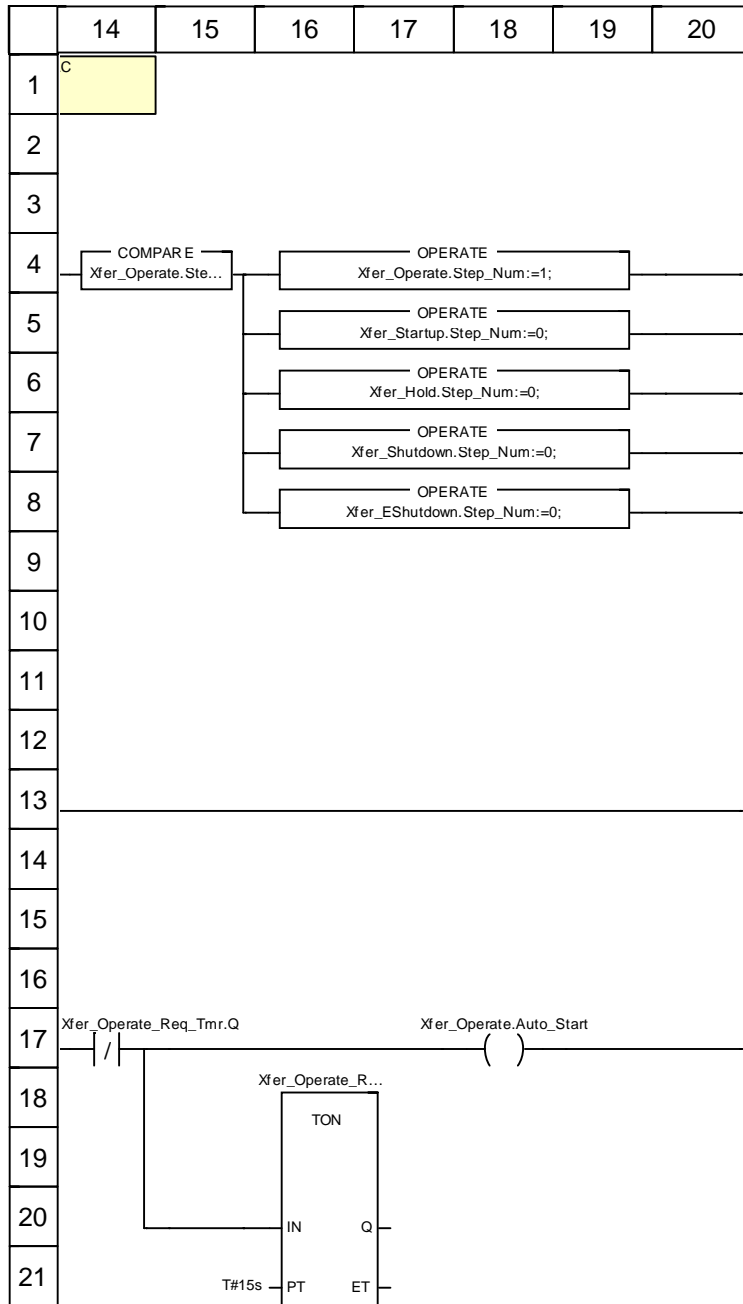
	14	15	16	17	18	19	20
26							
27							
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							

Truncated labels:

Label	Position(s)
Xfer_Hold.Auto_Start	(6, 4) (3, 17)
Xfer_Operate.Auto_Start	(2, 17)
Xfer_Shutdown.Auto_Start	(7, 4) (4, 17)
Xfer_Startup.Auto_Ons	(11, 17)
Xfer_Startup.Step_Num=0	(14, 4)
Xfer_Startup.Step_Num=1	(2, 24)
Xfer_Startup.Step_Num=2	(2, 28)
Xfer_Startup.Step_Num=3	(2, 32)
Xfer_Startup.Step_Num=4	(2, 36)
Xfer_Startup.Step_Num>=1	(2, 8)
Xfer_Startup_Req_Tmr	(16, 18)

Xfer_Operate_SR <SR> : [MAST]



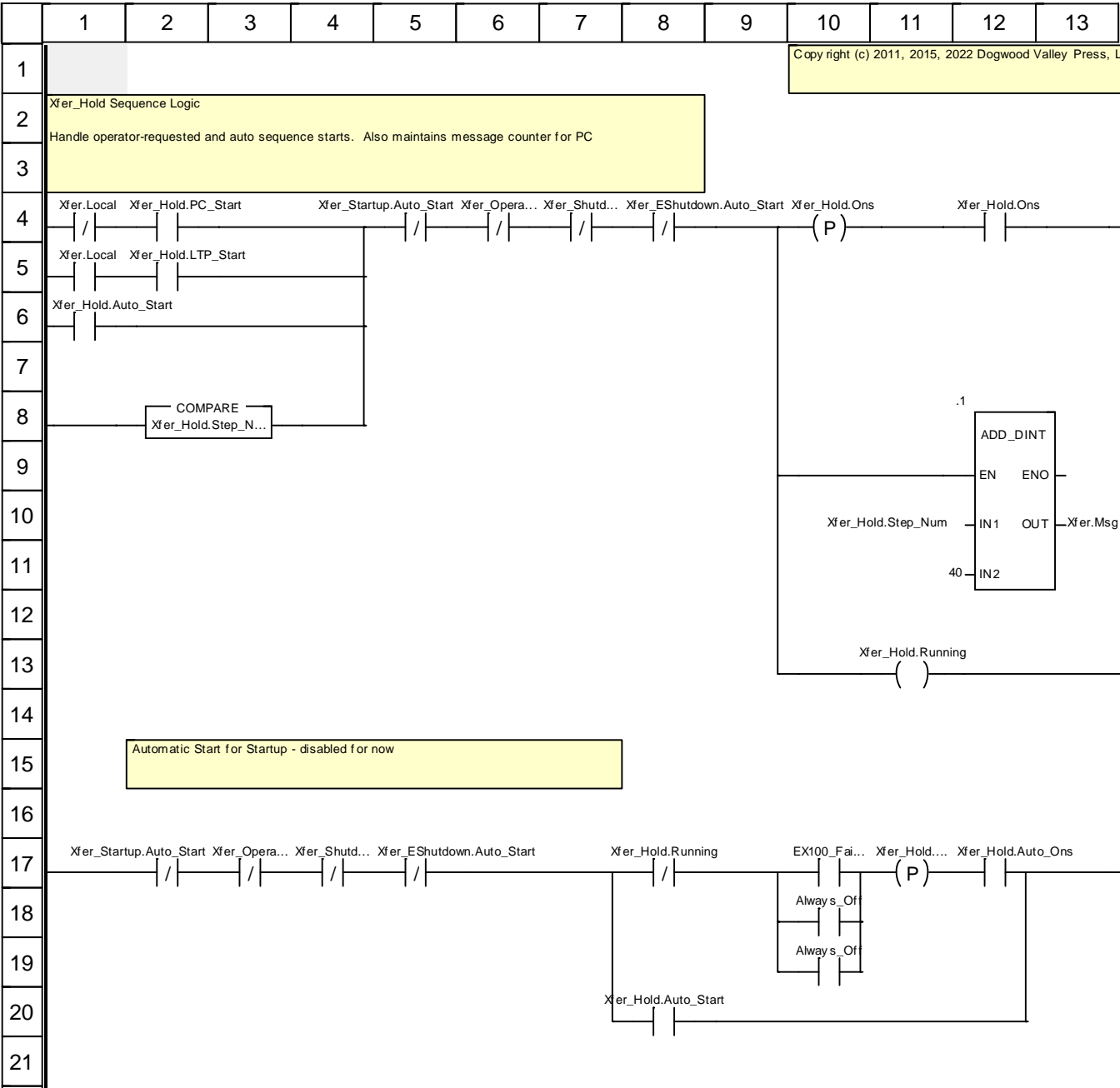


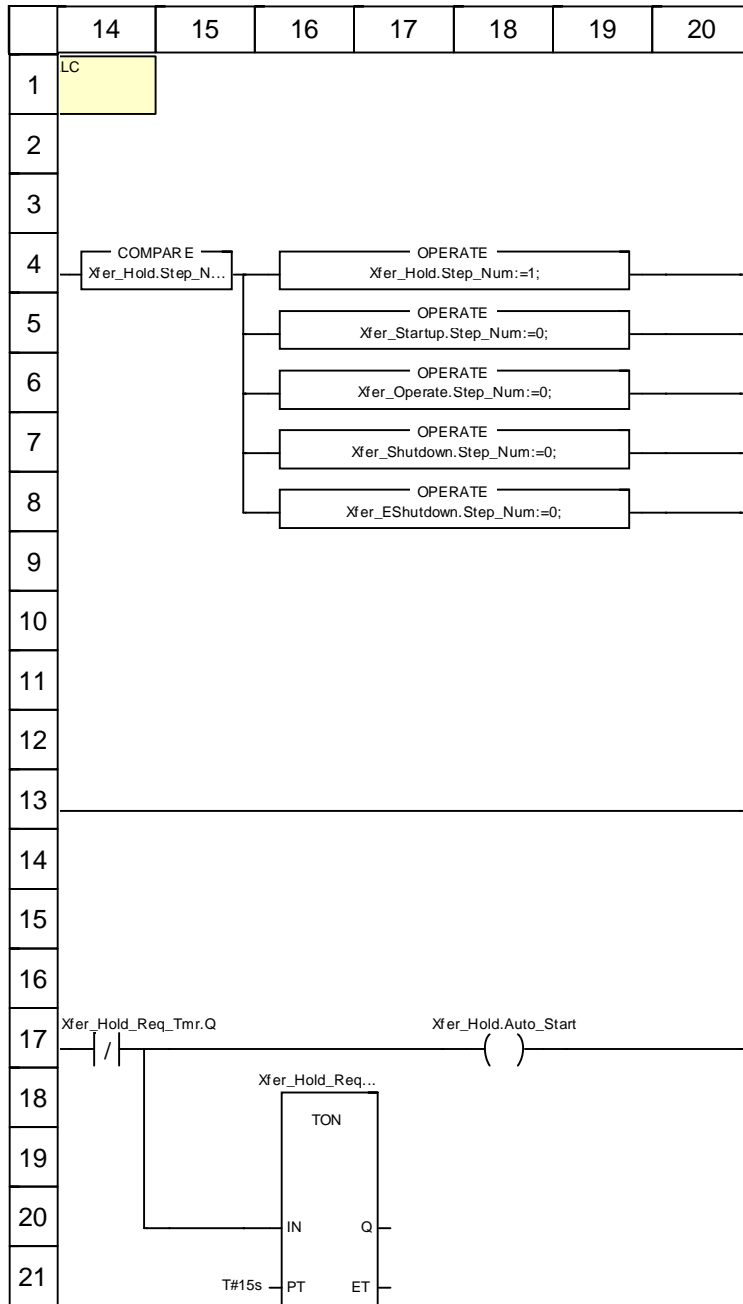
Truncated labels:

Label	Position(s)
Xfer_Hold.Auto_Start	(6, 4) (3, 17)
Xfer_Operate.Auto_Ons	(11, 17)
Xfer_Operate.Step_Num=0	(14, 4)
Xfer_Operate.Step_Num>=1	(2, 8)
Xfer_Operate_Req_Tmr	(16, 18)

Xfer_Shutdown.Auto_Start	(7, 4) (4, 17)
Xfer_Startup.Step_Num=5	(9, 17)

Xfer_Hold_SR <SR> : [MAST]



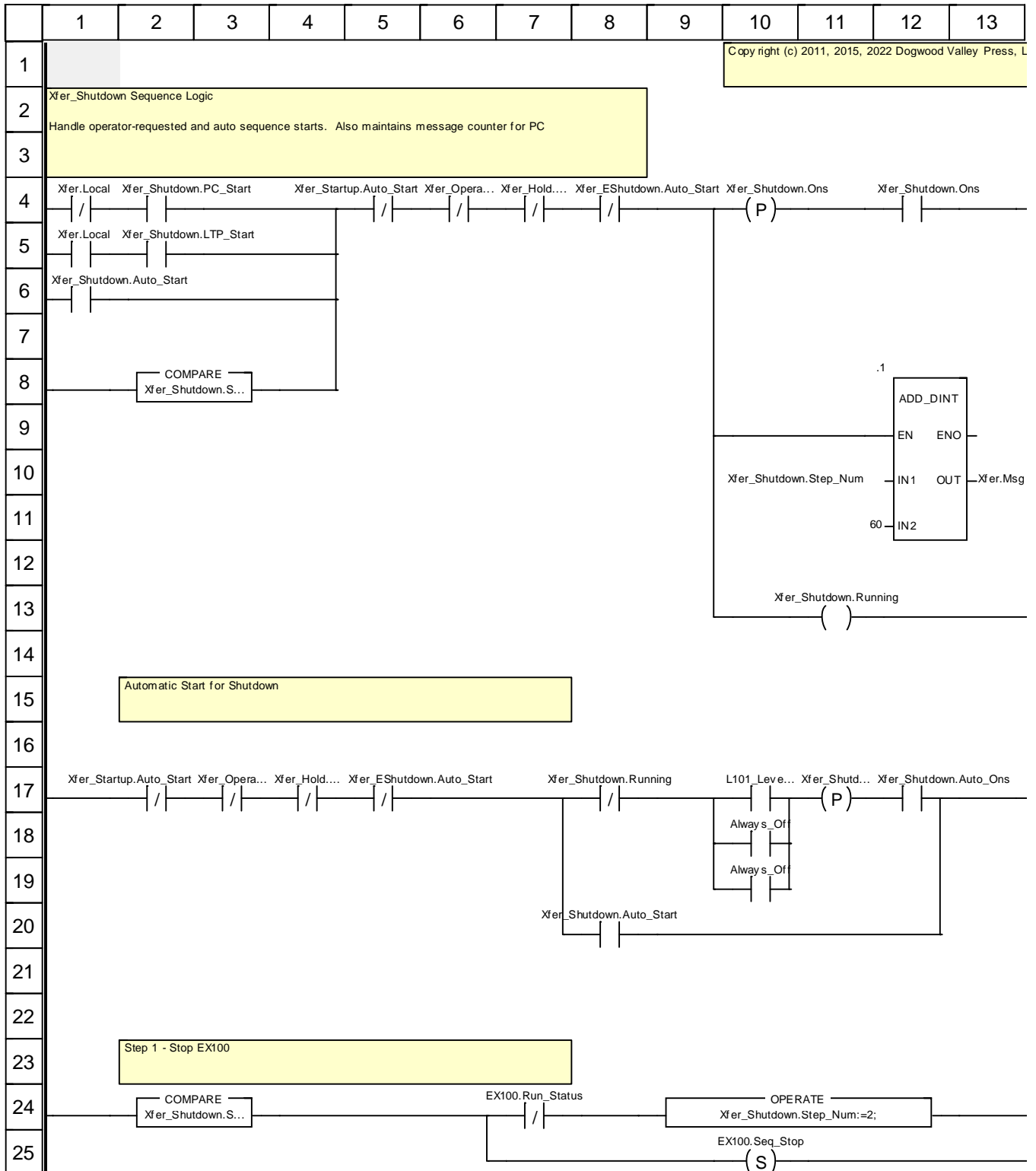


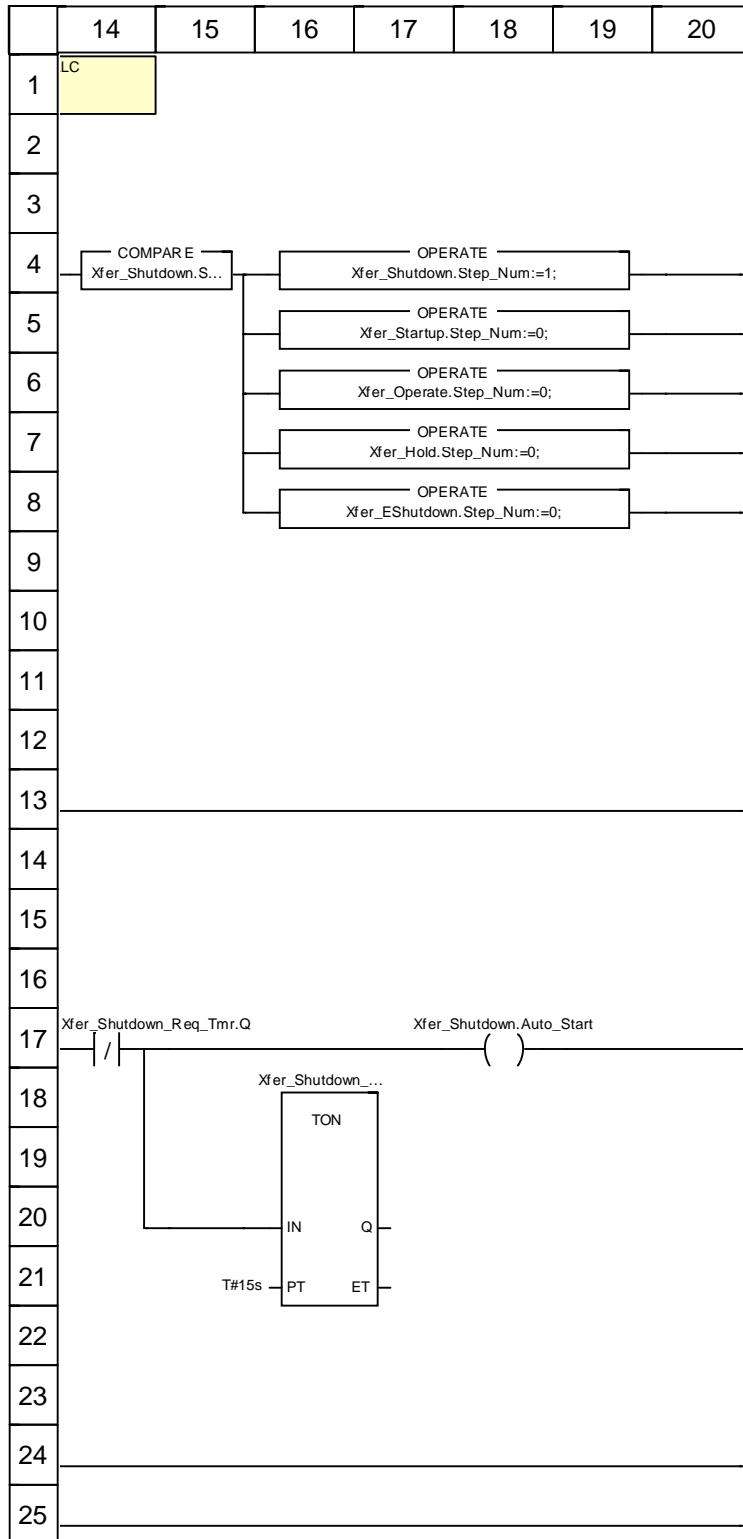
Truncated labels:

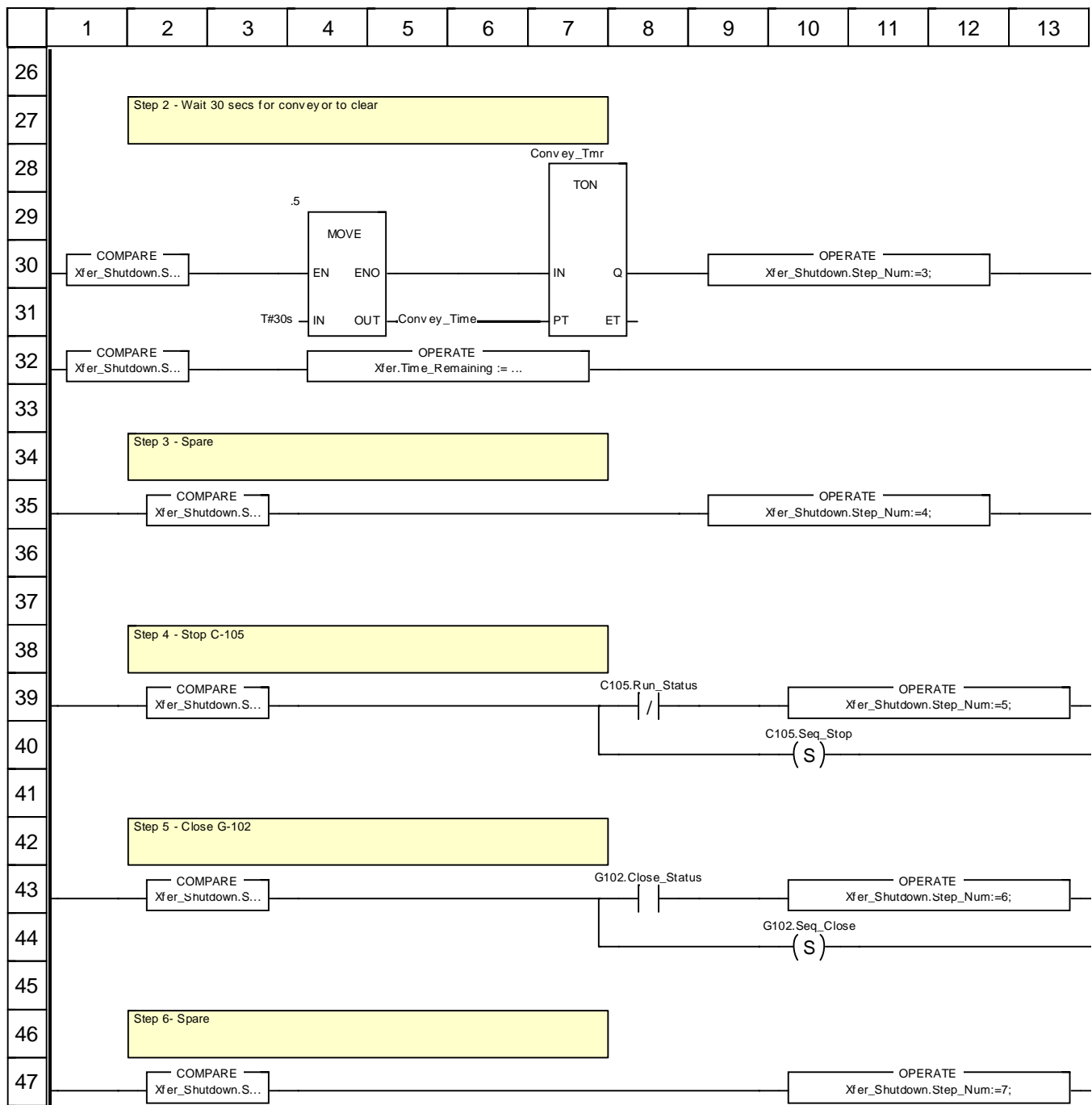
Label	Position(s)
EX100_FailHold_Tmr.Q	(10, 17)
Xfer_Hold.Auto_Ons	(11, 17)
Xfer_Hold.Step_Num=0	(14, 4)
Xfer_Hold.Step_Num>=1	(2, 8)
Xfer_Hold_Req_Tmr	(16, 18)

Xfer_Operate.Auto_Start	(6, 4) (3, 17)
Xfer_Shutdown.Auto_Start	(7, 4) (4, 17)

Xfer_Shutdown_SR <SR> : [MAST]







	14	15	16	17	18	19	20
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31							
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43							
44							
45							
46							
47							

Truncated labels:

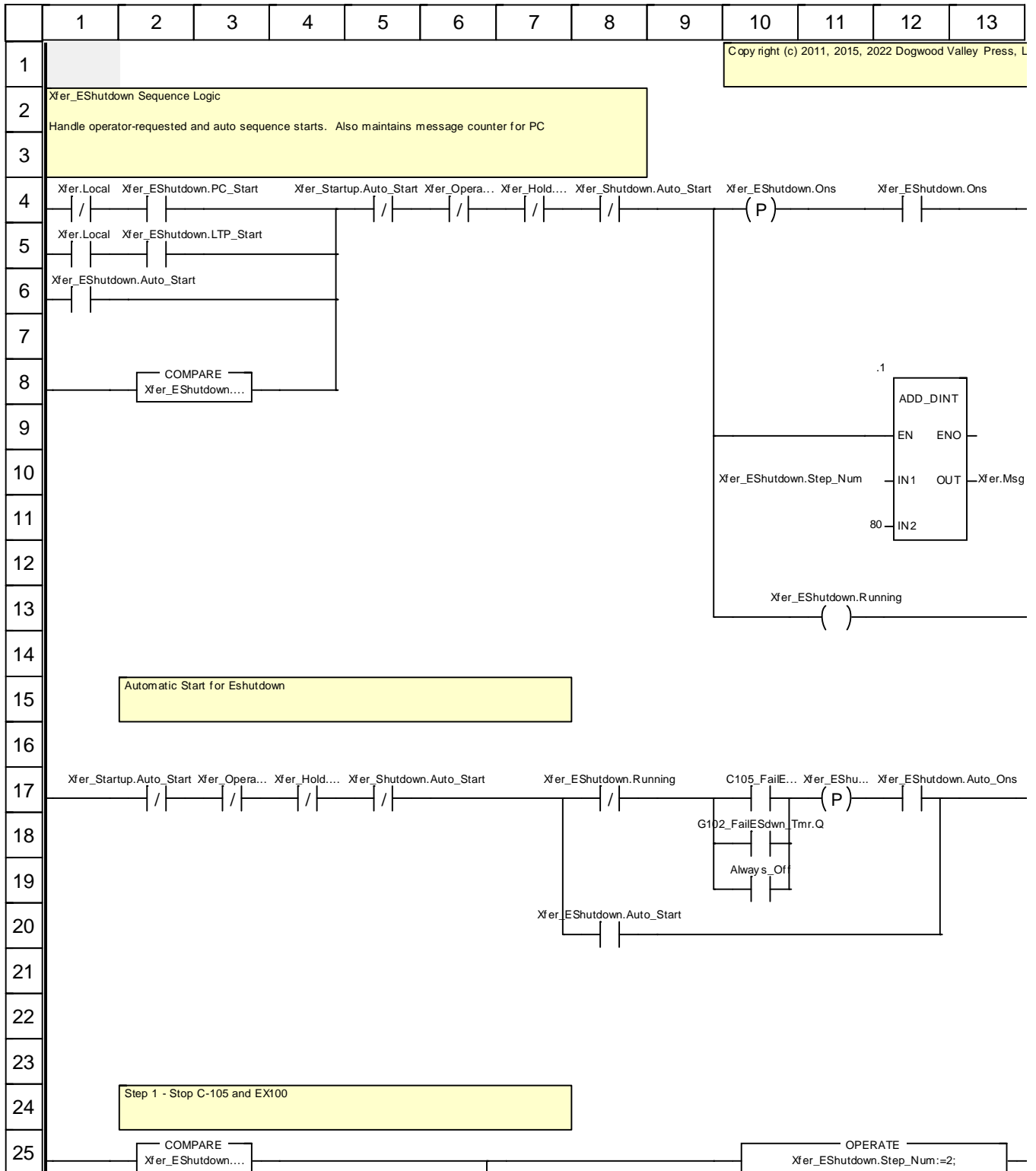
Label	Position(s)
L101_Level_Sdwn_Tmr.Q	(10, 17)
Xfer.Time_Remaining = (TIME_TO_DINT(Convey_Time - Convey_Tmr.ET))/1000;	(4, 32)
Xfer_Hold.Auto_Start	(7, 4) (4, 17)
Xfer_Operate.Auto_Start	(6, 4) (3, 17)
Xfer_Shutdown.Auto_Ons	(11, 17)
Xfer_Shutdown.Step_Num=0	(14, 4)
Xfer_Shutdown.Step_Num=1	(2, 24)
Xfer_Shutdown.Step_Num=2	(1, 30) (1, 32)
Xfer_Shutdown.Step_Num=3	(2, 35)

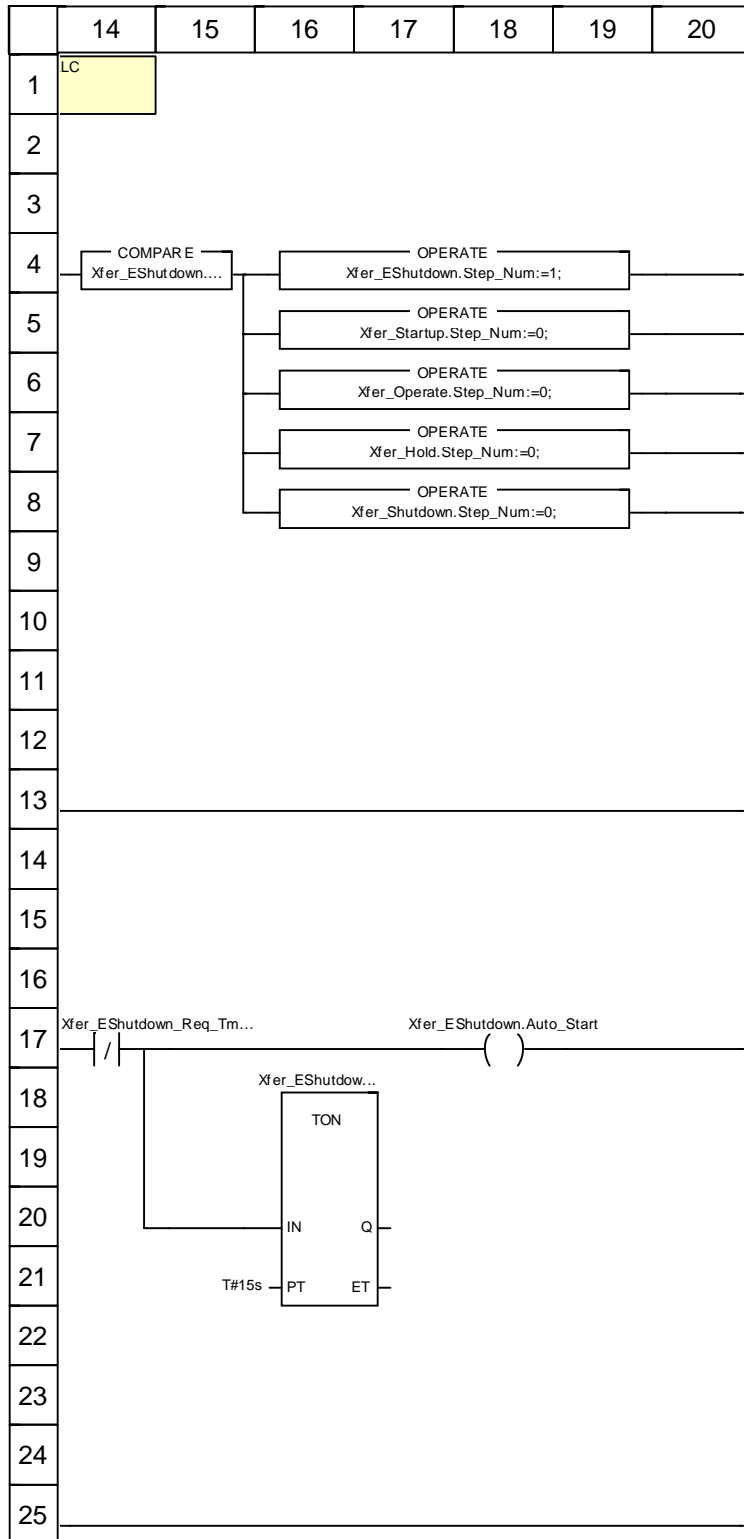
Copyright © 2011 - 2023 Dogwood Valley Press, LLC.	Author:	9.1.1.2 SR Sections 9.1.1.2.5 Xfer_Shutdown_SR	Printed on 6/16/2023
	Dept.:		
	Project: Example 21.4		Page: 46/72

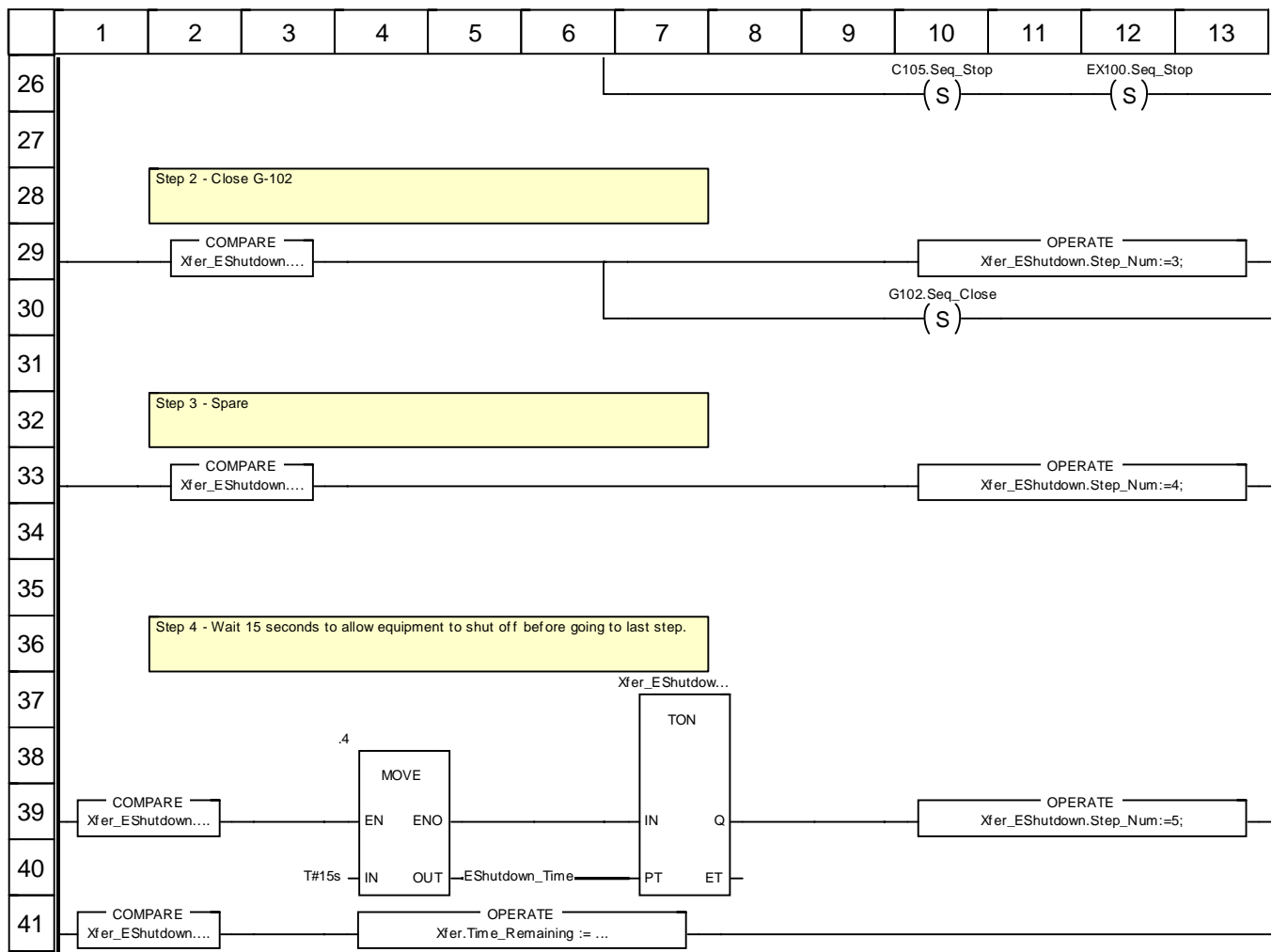
This document is the property of Dogwood Valley Press, LLC and cannot be reproduced or released without prior authorization.

Xfer_Shutdown.Step_Num=4	(2, 39)
Xfer_Shutdown.Step_Num=5	(2, 43)
Xfer_Shutdown.Step_Num=6	(2, 47)
Xfer_Shutdown.Step_Num>=1	(2, 8)
Xfer_Shutdown_Req_Tmr	(16, 18)

Xfer_EShutdown_SR <SR> : [MAST]





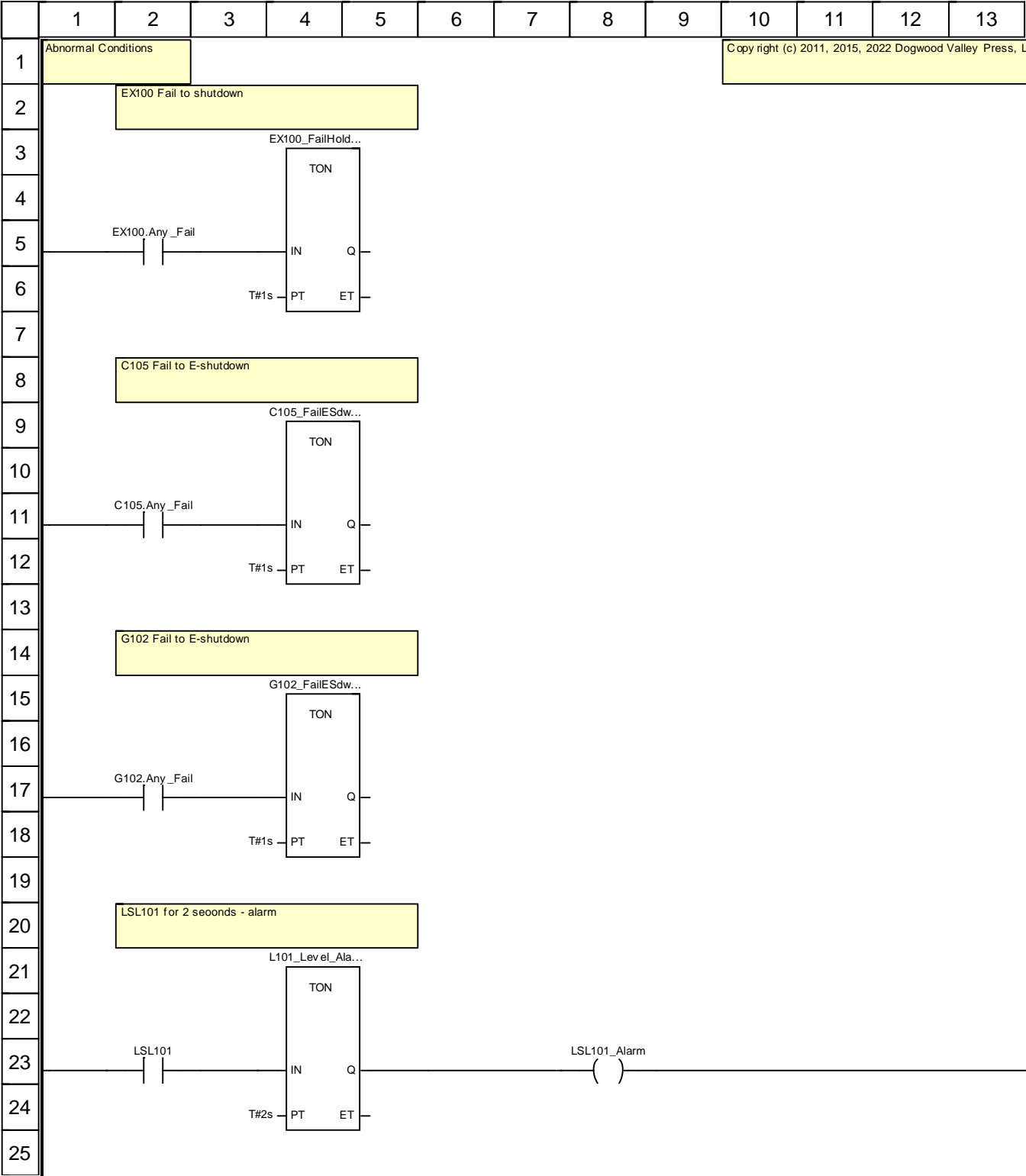


	14	15	16	17	18	19	20
26							
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34							
35							
36							
37							
38							
39							
40							
41							

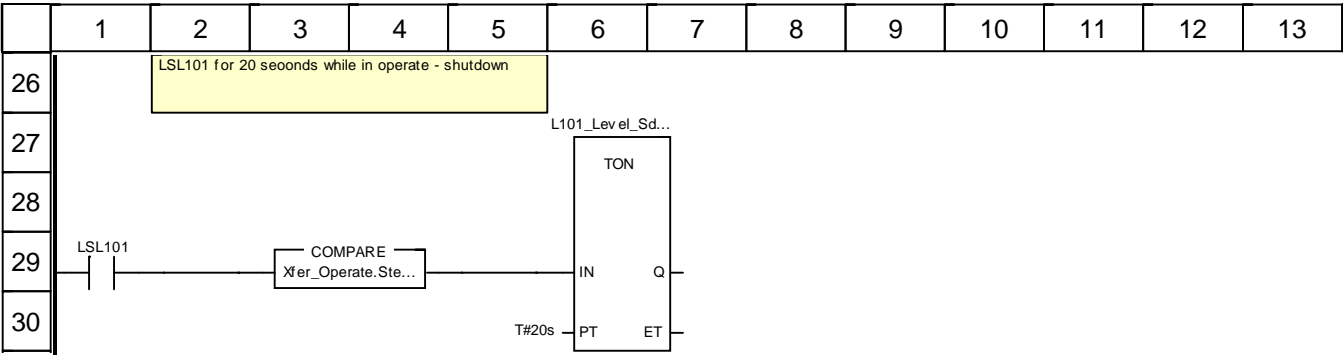
Truncated labels:

Label	Position(s)
C105_FailESdwn_Tmr.Q	(10, 17)
Xfer.Time_Remaining = (TIME_TO_DINT(EShutdown_Time - Xfer_EShutdown_Tmr.ET))/1000;	(4, 41)
Xfer_EShutdown.Auto_Ons	(11, 17)
Xfer_EShutdown.Step_Num=0	(14, 4)
Xfer_EShutdown.Step_Num=1	(2, 25)
Xfer_EShutdown.Step_Num=2	(2, 29)
Xfer_EShutdown.Step_Num=3	(2, 33)
Xfer_EShutdown.Step_Num=4	(1, 39) (1, 41)
Xfer_EShutdown.Step_Num>=1	(2, 8)
Xfer_EShutdown_Req_Tmr	(16, 18)
Xfer_EShutdown_Req_Tmr.Q	(14, 17)
Xfer_EShutdown_Tmr	(7, 37)
Xfer_Hold.Auto_Start	(7, 4) (4, 17)
Xfer_Operate.Auto_Start	(6, 4) (3, 17)

Xfer_Abnormal_SR <SR> : [MAST]



	14	15	16	17	18	19	20
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Truncated labels:

Label	Position(s)
C105_FailESdwn_Tmr	(4, 9)
EX100_FailHold_Tmr	(4, 3)
G102_FailESdwn_Tmr	(4, 15)
L101_Level_Alarm_Tmr	(4, 21)
L101_Level_Sdwn_Tmr	(6, 27)
Xfer_Operate.Step_Num>=1	(3, 29)

Cross References

Application:

Addresses

Object	Referred into	Location	Usage
%S13	Simulation : [MAST]	(I 36, c: 2)	R
	Variables & FB instances	First_Scan	M

Variables or FB instances

Object	Referred into	Location	Usage
Always_Off	Xfer_EShutdown_SR <SR> : [MAST]	(I 19, c: 10)	R
	Xfer_Operate_SR <SR> : [MAST]	(I 18, c: 10)	R
		(I 19, c: 10)	R
	Xfer_Hold_SR <SR> : [MAST]	(I 18, c: 10)	R
		(I 19, c: 10)	R
	Xfer_Startup_SR <SR> : [MAST]	(I 17, c: 1)	R
		(I 17, c: 10)	R
		(I 18, c: 10)	R
		(I 19, c: 10)	R
	Xfer_Shutdown_SR <SR> : [MAST]	(I 18, c: 10)	R
		(I 19, c: 10)	R
C105	Xfer_EShutdown_SR <SR> : [MAST]	(I 26, c: 10)	W
	Xfer_Startup_SR <SR> : [MAST]	(I 28, c: 7)	R
		(I 29, c: 10)	W
	Motors : [MAST]	(I 3, c: 8)	R/W
	Xfer_Abnormal_SR <SR> : [MAST]	(I 11, c: 2)	R
	Xfer_Shutdown_SR <SR> : [MAST]	(I 39, c: 8)	R
		(I 40, c: 10)	W
C105_Aux	Simulation : [MAST]	(I 14, c: 9)	W
	Motors : [MAST]	(I 3, c: 8)	R
C105_FailESdwn_Tmr	Xfer_Abnormal_SR <SR> : [MAST]	(I 9, c: 4)	FC
	Xfer_EShutdown_SR <SR> : [MAST]	(I 17, c: 10)	R
C105_HOA	Simulation : [MAST]	(I 2, c: 3)	W
	Motors : [MAST]	(I 3, c: 8)	R
C105_OL	Motors : [MAST]	(I 3, c: 8)	R
C105_Start	Simulation : [MAST]	(I 11, c: 2)	R
	Motors : [MAST]	(I 3, c: 8)	W
Convey_Time	Xfer_Shutdown_SR <SR> : [MAST]	(I 29, c: 4)	W
		(I 32, c: 4)	R
Convey_Tmr	Xfer_Shutdown_SR <SR> : [MAST]	(I 32, c: 4)	R
		(I 28, c: 7)	FC
EShutdown_Time	Xfer_EShutdown_SR <SR> : [MAST]	(I 38, c: 4)	W
		(I 41, c: 4)	R
EX100	Xfer_EShutdown_SR <SR> : [MAST]	(I 26, c: 12)	W
	Xfer_Startup_SR <SR> : [MAST]	(I 36, c: 7)	R
		(I 37, c: 10)	W
	Motors : [MAST]	(I 3, c: 3)	R/W
	Xfer_Abnormal_SR <SR> : [MAST]	(I 5, c: 2)	R
	Xfer_Shutdown_SR <SR> : [MAST]	(I 24, c: 7)	R
		(I 25, c: 10)	W
EX100_Aux	Simulation : [MAST]	(I 5, c: 6)	W
	Motors : [MAST]	(I 3, c: 3)	R
EX100_FailHold_Tmr	Xfer_Abnormal_SR <SR> : [MAST]	(I 3, c: 4)	FC

Cross References

Object	Referred into	Location	Usage
	Xfer_Hold_SR <SR> : [MAST]	(I 17, c: 10)	R
EX100_HOA	Simulation : [MAST]	(I 2, c: 2)	W
	Motors : [MAST]	(I 3, c: 3)	R
EX100_OL	Motors : [MAST]	(I 3, c: 3)	R
EX100_Start	Simulation : [MAST]	(I 5, c: 2)	R
	Motors : [MAST]	(I 3, c: 3)	W
FBI_0	Motors : [MAST]	(I 3, c: 3)	FC
FBI_3	Motors : [MAST]	(I 3, c: 8)	FC
FBI_4	Motors : [MAST]	(I 3, c: 14)	FC
G102	Xfer_EShutdown_SR <SR> : [MAST]	(I 30, c: 10)	W
	Xfer_Startup_SR <SR> : [MAST]	(I 24, c: 7)	R
		(I 25, c: 10)	W
	Motors : [MAST]	(I 3, c: 14)	R/W
	Xfer_Abnormal_SR <SR> : [MAST]	(I 17, c: 2)	R
	Xfer_Shutdown_SR <SR> : [MAST]	(I 43, c: 8)	R
		(I 44, c: 10)	W
G102_Close_Aux	Simulation : [MAST]	(I 31, c: 9)	W
	Motors : [MAST]	(I 3, c: 14)	R
G102_FailESdwn_Tmr	Xfer_Abnormal_SR <SR> : [MAST]	(I 15, c: 4)	FC
	Xfer_EShutdown_SR <SR> : [MAST]	(I 18, c: 10)	R
G102_HOA	Simulation : [MAST]	(I 2, c: 4)	W
	Motors : [MAST]	(I 3, c: 14)	R
G102_OL	Motors : [MAST]	(I 3, c: 14)	R
G102_Open_Aux	Simulation : [MAST]	(I 23, c: 9)	W
	Motors : [MAST]	(I 3, c: 14)	R
G102_Start_Close	Simulation : [MAST]	(I 28, c: 2)	R
	Motors : [MAST]	(I 3, c: 14)	W
G102_Start_Open	Simulation : [MAST]	(I 20, c: 2)	R
	Motors : [MAST]	(I 3, c: 14)	W
L101_Level_Alarm_Tmr	Xfer_Abnormal_SR <SR> : [MAST]	(I 21, c: 4)	FC
L101_Level_Sdwn_Tmr	Xfer_Abnormal_SR <SR> : [MAST]	(I 27, c: 6)	FC
	Xfer_Shutdown_SR <SR> : [MAST]	(I 17, c: 10)	R
LSL101	Xfer_Abnormal_SR <SR> : [MAST]	(I 23, c: 2)	R
		(I 29, c: 1)	R
LSL101_Alarm	Xfer_Abnormal_SR <SR> : [MAST]	(I 23, c: 8)	W
Sim_C105_Tmr	Simulation : [MAST]	(I 9, c: 4)	FC
Sim_EX100_Tmr	Simulation : [MAST]	(I 3, c: 4)	FC
Sim_G102Clos_Tmr	Simulation : [MAST]	(I 26, c: 4)	FC
Sim_G102Open_Tmr	Simulation : [MAST]	(I 18, c: 4)	FC
SS105	Simulation : [MAST]	(I 11, c: 6)	W
	Motors : [MAST]	(I 3, c: 8)	R
Xfer	Xfer_EShutdown_SR <SR> : [MAST]	(I 4, c: 1)	R
		(I 5, c: 1)	R
		(I 41, c: 4)	W
		(I 8, c: 12)	W
	Xfer_Operate_SR <SR> : [MAST]	(I 4, c: 1)	R
		(I 8, c: 12)	W
		(I 5, c: 1)	R
	Xfer_Hold_SR <SR> : [MAST]	(I 4, c: 1)	R
		(I 5, c: 1)	R
		(I 8, c: 12)	W
	Xfer_Misc_SR <SR> : [MAST]	(I 3, c: 1)	R
		(I 3, c: 6)	W
		(I 9, c: 7)	W
	Xfer_Startup_SR <SR> : [MAST]	(I 4, c: 1)	R

Cross References

Object	Referred into	Location	Usage
		(t 5, c: 1)	R
		(t 8, c: 12)	W
	Xfer_Shutdown_SR <SR> : [MAST]	(t 4, c: 1)	R
		(t 5, c: 1)	R
		(t 32, c: 4)	W
		(t 8, c: 12)	W
	Motors : [MAST]	(t 3, c: 3)	R
		(t 3, c: 3)	R
		(t 3, c: 3)	R
		(t 3, c: 3)	R
		(t 3, c: 3)	R
		(t 3, c: 8)	R
		(t 3, c: 8)	R
		(t 3, c: 8)	R
		(t 3, c: 8)	R
		(t 3, c: 8)	R
		(t 3, c: 8)	R
		(t 3, c: 14)	R
		(t 3, c: 14)	R
		(t 3, c: 14)	R
		(t 3, c: 14)	R
		(t 3, c: 14)	R
Xfer_EShutdown	Xfer_EShutdown_SR <SR> : [MAST]	(t 4, c: 2)	R
		(t 4, c: 10)	W
		(t 4, c: 12)	R
		(t 5, c: 2)	R
		(t 6, c: 1)	R
		(t 13, c: 11)	W
		(t 17, c: 8)	R
		(t 17, c: 11)	W
		(t 17, c: 12)	R
		(t 17, c: 18)	W
		(t 20, c: 8)	R
		(t 8, c: 2)	R
		(t 4, c: 14)	R
		(t 4, c: 16)	W
		(t 25, c: 2)	R
		(t 25, c: 10)	W
		(t 29, c: 2)	R
		(t 33, c: 2)	R
		(t 39, c: 1)	R
		(t 29, c: 10)	W
		(t 33, c: 10)	W
		(t 39, c: 10)	W
		(t 41, c: 1)	R
		(t 8, c: 12)	R
	Xfer_Operate_SR <SR> : [MAST]	(t 8, c: 16)	W
		(t 4, c: 8)	R
		(t 17, c: 5)	R
	Xfer_Hold_SR <SR> : [MAST]	(t 4, c: 8)	R
		(t 17, c: 5)	R
		(t 8, c: 16)	W
	Xfer_Misc_SR <SR> : [MAST]	(t 9, c: 4)	R
		(t 5, c: 3)	R
	Xfer_Startup_SR <SR> : [MAST]	(t 4, c: 8)	R
		(t 8, c: 16)	W

Cross References

Object	Referred into	Location	Usage
		(l 17, c: 5)	R
	Xfer_Shutdown_SR <SR> : [MAST]	(l 4, c: 8)	R
		(l 17, c: 5)	R
		(l 8, c: 16)	W
Xfer_EShutdown_Req_Tmr	Xfer_EShutdown_SR <SR> : [MAST]	(l 17, c: 14)	R
		(l 18, c: 16)	FC
Xfer_EShutdown_Tmr	Xfer_EShutdown_SR <SR> : [MAST]	(l 41, c: 4)	R
		(l 37, c: 7)	FC
Xfer_Hold	Xfer_EShutdown_SR <SR> : [MAST]	(l 4, c: 7)	R
		(l 17, c: 4)	R
		(l 7, c: 16)	W
	Xfer_Operate_SR <SR> : [MAST]	(l 4, c: 6)	R
		(l 6, c: 16)	W
		(l 17, c: 3)	R
	Xfer_Startup_SR <SR> : [MAST]	(l 4, c: 6)	R
		(l 6, c: 16)	W
		(l 17, c: 3)	R
	Xfer_Hold_SR <SR> : [MAST]	(l 4, c: 2)	R
		(l 4, c: 10)	W
		(l 4, c: 12)	R
		(l 5, c: 2)	R
		(l 6, c: 1)	R
		(l 13, c: 11)	W
		(l 17, c: 8)	R
		(l 17, c: 11)	W
		(l 17, c: 12)	R
		(l 17, c: 18)	W
		(l 20, c: 8)	R
		(l 8, c: 2)	R
		(l 4, c: 14)	R
		(l 4, c: 16)	W
		(l 8, c: 12)	R
	Xfer_Misc_SR <SR> : [MAST]	(l 3, c: 3)	R
	Xfer_Shutdown_SR <SR> : [MAST]	(l 4, c: 7)	R
		(l 17, c: 4)	R
		(l 7, c: 16)	W
Xfer_Hold_Req_Tmr	Xfer_Hold_SR <SR> : [MAST]	(l 17, c: 14)	R
		(l 18, c: 16)	FC
Xfer_Operate	Xfer_EShutdown_SR <SR> : [MAST]	(l 4, c: 6)	R
		(l 17, c: 3)	R
		(l 6, c: 16)	W
	Xfer_Operate_SR <SR> : [MAST]	(l 4, c: 2)	R
		(l 4, c: 14)	R
		(l 4, c: 16)	W
		(l 8, c: 12)	R
		(l 4, c: 10)	W
		(l 4, c: 12)	R
		(l 5, c: 2)	R
		(l 6, c: 1)	R
		(l 13, c: 11)	W
		(l 17, c: 8)	R
		(l 17, c: 11)	W
		(l 17, c: 12)	R
		(l 17, c: 18)	W
		(l 20, c: 8)	R

Cross References

Object	Referred into	Location	Usage
		(l 8, c: 2)	R
	Xfer_Hold_SR <SR> : [MAST]	(l 4, c: 6)	R
		(l 17, c: 3)	R
		(l 6, c: 16)	W
	Xfer_Abnormal_SR <SR> : [MAST]	(l 29, c: 3)	R
	Xfer_Startup_SR <SR> : [MAST]	(l 4, c: 5)	R
		(l 5, c: 16)	W
		(l 17, c: 2)	R
	Xfer_Shutdown_SR <SR> : [MAST]	(l 4, c: 6)	R
		(l 17, c: 3)	R
		(l 6, c: 16)	W
Xfer_Operate_Req_Tmr	Xfer_Operate_SR <SR> : [MAST]	(l 17, c: 14)	R
		(l 18, c: 16)	FC
Xfer_Shutdown	Xfer_EShutdown_SR <SR> : [MAST]	(l 4, c: 8)	R
		(l 17, c: 5)	R
		(l 8, c: 16)	W
	Xfer_Operate_SR <SR> : [MAST]	(l 7, c: 16)	W
		(l 4, c: 7)	R
		(l 17, c: 4)	R
	Xfer_Hold_SR <SR> : [MAST]	(l 4, c: 7)	R
		(l 17, c: 4)	R
		(l 7, c: 16)	W
	Xfer_Misc_SR <SR> : [MAST]	(l 9, c: 2)	R
		(l 4, c: 3)	R
	Xfer_Startup_SR <SR> : [MAST]	(l 4, c: 7)	R
		(l 7, c: 16)	W
		(l 17, c: 4)	R
	Xfer_Shutdown_SR <SR> : [MAST]	(l 4, c: 2)	R
		(l 4, c: 10)	W
		(l 4, c: 12)	R
		(l 5, c: 2)	R
		(l 6, c: 1)	R
		(l 13, c: 11)	W
		(l 17, c: 8)	R
		(l 17, c: 11)	W
		(l 17, c: 12)	R
		(l 17, c: 18)	W
		(l 20, c: 8)	R
		(l 8, c: 2)	R
		(l 4, c: 14)	R
		(l 4, c: 16)	W
		(l 24, c: 9)	W
		(l 24, c: 2)	R
		(l 30, c: 1)	R
		(l 35, c: 2)	R
		(l 39, c: 2)	R
		(l 43, c: 2)	R
		(l 47, c: 2)	R
		(l 30, c: 9)	W
		(l 35, c: 9)	W
		(l 39, c: 10)	W
		(l 43, c: 10)	W
		(l 47, c: 10)	W
		(l 32, c: 1)	R
		(l 8, c: 12)	R

Cross References

Object	Referred into	Location	Usage
Xfer_Shutdown_Req_Tmr	Xfer_Shutdown_SR <SR> : [MAST]	(I 17, c: 14)	R
		(I 18, c: 16)	FC
Xfer_Startup	Xfer_EShutdown_SR <SR> : [MAST]	(I 4, c: 5)	R
		(I 17, c: 2)	R
		(I 5, c: 16)	W
	Xfer_Operate_SR <SR> : [MAST]	(I 4, c: 5)	R
		(I 17, c: 9)	R
		(I 5, c: 16)	W
		(I 17, c: 2)	R
	Xfer_Hold_SR <SR> : [MAST]	(I 4, c: 5)	R
		(I 17, c: 2)	R
		(I 5, c: 16)	W
	Xfer_Startup_SR <SR> : [MAST]	(I 4, c: 2)	R
		(I 4, c: 10)	W
		(I 4, c: 12)	R
		(I 5, c: 2)	R
		(I 6, c: 1)	R
		(I 24, c: 2)	R
		(I 24, c: 9)	W
		(I 28, c: 2)	R
		(I 32, c: 2)	R
		(I 36, c: 2)	R
		(I 28, c: 9)	W
		(I 32, c: 9)	W
		(I 36, c: 9)	W
		(I 8, c: 12)	R
		(I 13, c: 11)	W
		(I 17, c: 8)	R
		(I 17, c: 11)	W
		(I 17, c: 12)	R
		(I 17, c: 18)	W
		(I 20, c: 8)	R
		(I 8, c: 2)	R
		(I 4, c: 14)	R
		(I 4, c: 16)	W
	Xfer_Shutdown_SR <SR> : [MAST]	(I 4, c: 5)	R
		(I 17, c: 2)	R
		(I 5, c: 16)	W
Xfer_Startup_Req_Tmr	Xfer_Startup_SR <SR> : [MAST]	(I 17, c: 14)	R
		(I 18, c: 16)	FC
ZSC102	Simulation : [MAST]	(I 23, c: 11)	W
		(I 28, c: 9)	W
		(I 36, c: 4)	W
	Motors : [MAST]	(I 3, c: 14)	R
ZSO102	Simulation : [MAST]	(I 20, c: 9)	W
		(I 31, c: 11)	W
		(I 36, c: 6)	W
	Motors : [MAST]	(I 3, c: 14)	R

EF objects

Object	Referred into	Location	Usage
add_dint	Xfer_Operate_SR <SR> : [MAST]	(I 8, c: 12)	FC
	Xfer_Hold_SR <SR> : [MAST]	(I 8, c: 12)	FC
	Xfer_Startup_SR <SR> : [MAST]	(I 8, c: 12)	FC

Cross References

Object	Referred into	Location	Usage
	Xfer_Shutdown_SR <SR> : [MAST]	(l 8, c: 12)	FC
	Xfer_EShutdown_SR <SR> : [MAST]	(l 8, c: 12)	FC
ge_time	Simulation : [MAST]	(l 12, c: 7)	FC
		(l 29, c: 7)	FC
		(l 21, c: 7)	FC
move	Xfer_Shutdown_SR <SR> : [MAST]	(l 29, c: 4)	FC
	Xfer_EShutdown_SR <SR> : [MAST]	(l 38, c: 4)	FC
time_to_dint	Xfer_EShutdown_SR <SR> : [MAST]	(l 41, c: 4)	FC
	Xfer_Shutdown_SR <SR> : [MAST]	(l 32, c: 4)	FC

Subroutines

Object	Referred into	Location	Usage
Xfer_Abnormal_SR	Xfer : [MAST]	(l 8, c: 1)	FC
Xfer_EShutdown_SR	Xfer : [MAST]	(l 13, c: 1)	FC
Xfer_Hold_SR	Xfer : [MAST]	(l 11, c: 1)	FC
Xfer_Misc_SR	Xfer : [MAST]	(l 7, c: 1)	FC
Xfer_Operate_SR	Xfer : [MAST]	(l 10, c: 1)	FC
Xfer_Shutdown_SR	Xfer : [MAST]	(l 12, c: 1)	FC
Xfer_Startup_SR	Xfer : [MAST]	(l 9, c: 1)	FC

Cross References

Gate_Flop:

Addresses

Object	Referred into	Location	Usage
%S13	Main <DFB> : [Gate_Flop]	(l 3, c: 7)	R
		(l 6, c: 7)	R

Variables or FB instances

Object	Referred into	Location	Usage
Alarm_Reset	Main <DFB> : [Gate_Flop]	(l 34, c: 1)	R
Fail_Tmr	Main <DFB> : [Gate_Flop]	(l 18, c: 5)	FC
HOA_Switch	Main <DFB> : [Gate_Flop]	(l 3, c: 5)	R
		(l 6, c: 5)	R
		(l 26, c: 1)	R
Left_LS	Main <DFB> : [Gate_Flop]	(l 3, c: 2)	R
		(l 20, c: 1)	R
		(l 21, c: 1)	R
		(l 22, c: 3)	R
		(l 37, c: 1)	R
Left_Req	Main <DFB> : [Gate_Flop]	(l 3, c: 1)	R
		(l 6, c: 3)	R
		(l 10, c: 7)	W
Maint	Main <DFB> : [Gate_Flop]	(l 10, c: 3)	R
		(l 11, c: 3)	R
		(l 14, c: 3)	R
		(l 15, c: 3)	R
Man_Left	Main <DFB> : [Gate_Flop]	(l 10, c: 4)	R
Man_Right	Main <DFB> : [Gate_Flop]	(l 14, c: 4)	R
Right_LS	Main <DFB> : [Gate_Flop]	(l 6, c: 2)	R
		(l 20, c: 3)	R
		(l 21, c: 3)	R
		(l 23, c: 3)	R
		(l 38, c: 1)	R
Right_Req	Main <DFB> : [Gate_Flop]	(l 3, c: 3)	R
		(l 6, c: 1)	R
		(l 14, c: 7)	W
Select_Dev_Num	Main <DFB> : [Gate_Flop]	(l 10, c: 1)	R
		(l 14, c: 1)	R
Sol_Left	Main <DFB> : [Gate_Flop]	(l 3, c: 8)	R
		(l 4, c: 1)	R
		(l 6, c: 10)	W
		(l 20, c: 8)	R
		(l 22, c: 1)	R
		(l 39, c: 1)	R
Sol_Right	Main <DFB> : [Gate_Flop]	(l 3, c: 10)	W
		(l 6, c: 8)	R
		(l 7, c: 1)	R
		(l 21, c: 8)	R
		(l 23, c: 1)	R
		(l 40, c: 1)	R
Tag	Main <DFB> : [Gate_Flop]	(l 3, c: 4)	R
		(l 6, c: 4)	R
		(l 11, c: 4)	R
		(l 15, c: 4)	R

Cross References

Object	Referred into	Location	Usage
		(l 20, c: 9)	W
		(l 21, c: 9)	W
		(l 26, c: 4)	W
		(l 29, c: 1)	R
		(l 29, c: 4)	W
		(l 30, c: 1)	R
		(l 31, c: 1)	R
		(l 34, c: 4)	W
		(l 34, c: 6)	W
		(l 37, c: 4)	W
		(l 38, c: 4)	W
		(l 39, c: 4)	W
		(l 43, c: 3)	W
		(l 43, c: 5)	W
This_Dev_Num	Main <DFB> : [Gate_Flop]	(l 10, c: 1)	R
		(l 14, c: 1)	R

Cross References

Gate_Slide:

Addresses

Object	Referred into	Location	Usage
%S13	Main <DFB> : [Gate_Slide]	(l 3, c: 7)	R
		(l 6, c: 7)	R

Variables or FB instances

Object	Referred into	Location	Usage
Alarm_Reset	Main <DFB> : [Gate_Slide]	(l 33, c: 1)	R
Close_Aux	Main <DFB> : [Gate_Slide]	(l 21, c: 7)	R
		(l 39, c: 1)	R
Close_LS	Main <DFB> : [Gate_Slide]	(l 6, c: 2)	R
		(l 37, c: 1)	R
Close_Req	Main <DFB> : [Gate_Slide]	(l 3, c: 3)	R
		(l 6, c: 1)	R
		(l 14, c: 7)	W
Fail_Tmr	Main <DFB> : [Gate_Slide]	(l 18, c: 3)	FC
HOA_Switch	Main <DFB> : [Gate_Slide]	(l 3, c: 5)	R
		(l 6, c: 5)	R
		(l 20, c: 8)	R
		(l 24, c: 1)	R
Maint	Main <DFB> : [Gate_Slide]	(l 10, c: 3)	R
		(l 11, c: 3)	R
		(l 14, c: 3)	R
		(l 15, c: 3)	R
Man_Close	Main <DFB> : [Gate_Slide]	(l 14, c: 4)	R
Man_Open	Main <DFB> : [Gate_Slide]	(l 10, c: 4)	R
OL_Trip	Main <DFB> : [Gate_Slide]	(l 3, c: 6)	R
		(l 6, c: 6)	R
		(l 20, c: 9)	R
		(l 25, c: 1)	R
Open_Aux	Main <DFB> : [Gate_Slide]	(l 20, c: 7)	R
		(l 38, c: 1)	R
Open_LS	Main <DFB> : [Gate_Slide]	(l 3, c: 2)	R
		(l 36, c: 1)	R
Open_Req	Main <DFB> : [Gate_Slide]	(l 3, c: 1)	R
		(l 6, c: 3)	R
		(l 10, c: 7)	W
Select_Dev_Num	Main <DFB> : [Gate_Slide]	(l 10, c: 1)	R
		(l 14, c: 1)	R
Start_Close	Main <DFB> : [Gate_Slide]	(l 3, c: 8)	R
		(l 6, c: 10)	W
		(l 7, c: 1)	R
		(l 21, c: 1)	R
		(l 21, c: 6)	R
Start_Open	Main <DFB> : [Gate_Slide]	(l 3, c: 10)	W
		(l 4, c: 1)	R
		(l 6, c: 8)	R
		(l 20, c: 1)	R
		(l 20, c: 6)	R
Tag	Main <DFB> : [Gate_Slide]	(l 3, c: 4)	R
		(l 6, c: 4)	R
		(l 11, c: 4)	R

Cross References

Object	Referred into	Location	Usage
		(l 15, c: 4)	R
		(l 20, c: 10)	W
		(l 24, c: 4)	W
		(l 25, c: 4)	W
		(l 28, c: 1)	R
		(l 28, c: 4)	W
		(l 29, c: 1)	R
		(l 30, c: 1)	R
		(l 33, c: 4)	W
		(l 36, c: 4)	W
		(l 37, c: 4)	W
		(l 38, c: 4)	W
		(l 42, c: 3)	W
		(l 42, c: 5)	W
This_Dev_Num	Main <DFB> : [Gate_Slide]	(l 10, c: 1)	R
		(l 14, c: 1)	R

Cross References

Motor_Conv:

Addresses

Object	Referred into	Location	Usage
%S13	Main <DFB> : [Motor_Conv]	(I 3, c: 6)	R

Variables or FB instances

Object	Referred into	Location	Usage
Alarm_Reset	Main <DFB> : [Motor_Conv]	(I 33, c: 1)	R
Aux_Contact	Main <DFB> : [Motor_Conv]	(I 19, c: 4)	R
Fail_Tmr	Main <DFB> : [Motor_Conv]	(I 19, c: 1)	R
		(I 20, c: 1)	R
		(I 14, c: 3)	FC
HOA_Switch	Main <DFB> : [Motor_Conv]	(I 3, c: 4)	R
		(I 19, c: 6)	R
		(I 20, c: 6)	R
		(I 23, c: 1)	R
Maint	Main <DFB> : [Motor_Conv]	(I 6, c: 3)	R
		(I 7, c: 3)	R
		(I 10, c: 3)	R
		(I 11, c: 3)	R
Man_Start	Main <DFB> : [Motor_Conv]	(I 6, c: 4)	R
Man_Stop	Main <DFB> : [Motor_Conv]	(I 10, c: 4)	R
OL_Trip	Main <DFB> : [Motor_Conv]	(I 3, c: 5)	R
		(I 19, c: 7)	R
		(I 20, c: 7)	R
		(I 24, c: 1)	R
Select_Dev_Num	Main <DFB> : [Motor_Conv]	(I 6, c: 1)	R
		(I 10, c: 1)	R
Speed_Switch	Main <DFB> : [Motor_Conv]	(I 20, c: 2)	R
		(I 36, c: 1)	R
Start_Req	Main <DFB> : [Motor_Conv]	(I 3, c: 2)	R
		(I 6, c: 7)	W
Starter	Main <DFB> : [Motor_Conv]	(I 3, c: 8)	W
		(I 4, c: 2)	R
		(I 16, c: 2)	R
Stop_Req	Main <DFB> : [Motor_Conv]	(I 3, c: 1)	R
		(I 10, c: 7)	W
Tag	Main <DFB> : [Motor_Conv]	(I 3, c: 3)	R
		(I 7, c: 4)	R
		(I 11, c: 4)	R
		(I 19, c: 8)	W
		(I 20, c: 4)	R
		(I 20, c: 8)	W
		(I 23, c: 4)	W
		(I 24, c: 4)	W
		(I 27, c: 1)	R
		(I 27, c: 4)	W
		(I 28, c: 1)	R
		(I 29, c: 1)	R
		(I 30, c: 1)	R
		(I 33, c: 4)	W
		(I 33, c: 6)	W
		(I 36, c: 4)	W

Cross References

Object	Referred into	Location	Usage
		(l 39, c: 3)	W
		(l 39, c: 5)	W
This_Dev_Num	Main <DFB> : [Motor_Conv]	(l 6, c: 1)	R
		(l 10, c: 1)	R

Cross References

Motor_Std:

Addresses

Object	Referred into	Location	Usage
%S13	Main <DFB> : [Motor_Std]	(I 3, c: 6)	R

Variables or FB instances

Object	Referred into	Location	Usage
Alarm_Reset	Main <DFB> : [Motor_Std]	(I 28, c: 1)	R
Aux_Contact	Main <DFB> : [Motor_Std]	(I 16, c: 5)	R
		(I 31, c: 1)	R
Fail_Tmr	Main <DFB> : [Motor_Std]	(I 14, c: 3)	FC
HOA_Switch	Main <DFB> : [Motor_Std]	(I 3, c: 4)	R
		(I 16, c: 6)	R
		(I 19, c: 1)	R
Maint	Main <DFB> : [Motor_Std]	(I 6, c: 3)	R
		(I 7, c: 3)	R
		(I 10, c: 3)	R
		(I 11, c: 3)	R
Man_Start	Main <DFB> : [Motor_Std]	(I 6, c: 4)	R
Man_Stop	Main <DFB> : [Motor_Std]	(I 10, c: 4)	R
OL_Trip	Main <DFB> : [Motor_Std]	(I 3, c: 5)	R
		(I 16, c: 7)	R
		(I 20, c: 1)	R
Select_Dev_Num	Main <DFB> : [Motor_Std]	(I 6, c: 1)	R
		(I 10, c: 1)	R
Start_Req	Main <DFB> : [Motor_Std]	(I 3, c: 2)	R
		(I 6, c: 7)	W
Starter	Main <DFB> : [Motor_Std]	(I 3, c: 8)	W
		(I 4, c: 2)	R
		(I 16, c: 2)	R
Stop_Req	Main <DFB> : [Motor_Std]	(I 3, c: 1)	R
		(I 10, c: 7)	W
Tag	Main <DFB> : [Motor_Std]	(I 3, c: 3)	R
		(I 7, c: 4)	R
		(I 11, c: 4)	R
		(I 16, c: 8)	W
		(I 19, c: 4)	W
		(I 20, c: 4)	W
		(I 23, c: 1)	R
		(I 23, c: 4)	W
		(I 24, c: 1)	R
		(I 25, c: 1)	R
		(I 28, c: 4)	W
		(I 31, c: 4)	W
		(I 34, c: 3)	W
		(I 34, c: 5)	W
This_Dev_Num	Main <DFB> : [Motor_Std]	(I 6, c: 1)	R
		(I 10, c: 1)	R

Cross References

Motor_VFD:

Addresses

Object	Referred into	Location	Usage
%S13	Main <DFB> : [Motor_VFD]	(l 3, c: 5)	R

Variables or FB instances

Object	Referred into	Location	Usage
Alm_Rst	Main <DFB> : [Motor_VFD]	(l 49, c: 2)	R
Comm_Health	Main <DFB> : [Motor_VFD]	(l 34, c: 2)	R
Drive_Cmds	Main <DFB> : [Motor_VFD]	(l 8, c: 5)	W
		(l 13, c: 7)	W
		(l 15, c: 7)	W
		(l 16, c: 7)	W
		(l 18, c: 7)	W
		(l 50, c: 8)	W
Drive_Status	Main <DFB> : [Motor_VFD]	(l 16, c: 4)	R
		(l 18, c: 4)	R
		(l 30, c: 4)	R
		(l 30, c: 8)	R
		(l 37, c: 2)	R
		(l 39, c: 2)	R
		(l 39, c: 8)	R
		(l 53, c: 2)	R
		(l 54, c: 2)	R
		(l 57, c: 2)	R
		(l 58, c: 2)	R
		(l 59, c: 2)	R
Man_Mode	Main <DFB> : [Motor_VFD]	(l 21, c: 2)	R
		(l 22, c: 2)	R
		(l 24, c: 2)	R
		(l 25, c: 2)	R
Man_Start	Main <DFB> : [Motor_VFD]	(l 21, c: 4)	R
Man_Stop	Main <DFB> : [Motor_VFD]	(l 24, c: 4)	R
Run_Fail_Tmr	Main <DFB> : [Motor_VFD]	(l 28, c: 2)	FC
Run_Req	Main <DFB> : [Motor_VFD]	(l 3, c: 7)	W
		(l 4, c: 2)	R
		(l 16, c: 2)	R
		(l 18, c: 2)	R
		(l 30, c: 1)	R
Stp_Req	Main <DFB> : [Motor_VFD]	(l 3, c: 1)	R
		(l 24, c: 7)	W
Str_req	Main <DFB> : [Motor_VFD]	(l 3, c: 2)	R
		(l 21, c: 7)	W
Tag	Main <DFB> : [Motor_VFD]	(l 3, c: 3)	R
		(l 7, c: 2)	R
		(l 7, c: 2)	W
		(l 8, c: 5)	R
		(l 13, c: 2)	R
		(l 22, c: 4)	R
		(l 25, c: 4)	R
		(l 30, c: 6)	R
		(l 30, c: 10)	W
		(l 34, c: 10)	W

Cross References

Object	Referred into	Location	Usage
		(l 37, c: 10)	W
		(l 39, c: 2)	W
		(l 39, c: 8)	W
		(l 44, c: 2)	R
		(l 44, c: 8)	W
		(l 45, c: 2)	R
		(l 46, c: 2)	R
		(l 49, c: 8)	W
		(l 53, c: 8)	W
		(l 54, c: 8)	W
		(l 57, c: 2)	W
		(l 58, c: 2)	W
		(l 59, c: 2)	W
		(l 62, c: 7)	W
		(l 63, c: 7)	W

EF objects

Object	Referred into	Location	Usage
int_to_real	Main <DFB> : [Motor_VFD]	(l 58, c: 2)	FC
		(l 57, c: 2)	FC
		(l 59, c: 2)	FC
limit_real	Main <DFB> : [Motor_VFD]	(l 7, c: 2)	FC
move	Main <DFB> : [Motor_VFD]	(l 39, c: 2)	FC
		(l 39, c: 8)	FC
real_to_int	Main <DFB> : [Motor_VFD]	(l 8, c: 5)	FC

Cross References

Valve_Disc:

Variables or FB instances

Object	Referred into	Location	Usage
Alarm_Reset	Main<DFB> : [Valve_Disc]	(I 23, c: 1)	R
Close_LS	Main<DFB> : [Valve_Disc]	(I 13, c: 3)	R
		(I 14, c: 3)	R
		(I 16, c: 3)	R
		(I 27, c: 1)	R
Fail_Tmr	Main<DFB> : [Valve_Disc]	(I 11, c: 5)	FC
Maint	Main<DFB> : [Valve_Disc]	(I 3, c: 3)	R
		(I 4, c: 3)	R
		(I 7, c: 3)	R
		(I 8, c: 3)	R
Man_Close	Main<DFB> : [Valve_Disc]	(I 7, c: 4)	R
Man_Open	Main<DFB> : [Valve_Disc]	(I 3, c: 4)	R
Open_LS	Main<DFB> : [Valve_Disc]	(I 13, c: 1)	R
		(I 14, c: 1)	R
		(I 15, c: 3)	R
		(I 26, c: 1)	R
Select_Dev_Num	Main<DFB> : [Valve_Disc]	(I 3, c: 1)	R
		(I 7, c: 1)	R
Sol_Vlv	Main<DFB> : [Valve_Disc]	(I 3, c: 7)	W
		(I 7, c: 7)	W
		(I 13, c: 8)	R
		(I 14, c: 8)	R
		(I 15, c: 1)	R
		(I 16, c: 1)	R
Tag	Main<DFB> : [Valve_Disc]	(I 4, c: 4)	R
		(I 8, c: 4)	R
		(I 13, c: 9)	W
		(I 14, c: 9)	W
		(I 19, c: 1)	R
		(I 19, c: 4)	W
		(I 20, c: 1)	R
		(I 23, c: 4)	W
		(I 23, c: 6)	W
		(I 26, c: 4)	W
		(I 27, c: 4)	W
		(I 30, c: 3)	W
		(I 30, c: 5)	W
This_Dev_Num	Main<DFB> : [Valve_Disc]	(I 3, c: 1)	R
		(I 7, c: 1)	R